Standards Implementation Workgroup
Draft Transcript
January 11, 2011

Presentation

Judy Sparrow – Office of the National Coordinator – Executive Director
Good morning, everybody and welcome to the Standards Committee Implementation Workgroup. This is the second day of a hearing, and I should also mention that several members of the Adoption Certification Workgroup are also on the panel today. Let me just remind you that this is a Federal Advisory Committee, which means there will be opportunity at the end of the meeting for the public to make comments and a summary of the hearing will be posted on the ONC Website. A reminder for the workgroup members to please identify yourselves when speaking.

With that, we'll go around the table and do a brief introduction of the workgroup members, starting on my left with Mera Choi.

Mera Choi – ONC – Staff Liaison
This is Mera Choi from ONC.

Robert Anthony – CMS – Health Insurance Specialist
Rob Anthony, Centers for Medicare & Medicaid Services.

Walter Suarez – Institute HIPAA/HIT Education & Research – Pres. & CEO
I'm Walter Suarez with Kaiser Permanente and a member of the HIT Standards Committee.

John Derr – Golden Living LLC – Chief Technology Strategic Officer
My name is John Derr. I'm from Golden Living, a member of the Standards Committee and representing long-term and post-acute care.

Anne Castro – BlueCross BlueShield South Carolina – Chief Design Architect
Anne Castro, BlueCross BlueShield of South Carolina, and I'm on the Standards Committee.

Larry Wolf – Kindred Healthcare – Senior Consulting Architect
Larry Wolf, Kindred Healthcare, on the Policy Committee.

Marc Probst – Intermountain Healthcare – CIO
Marc Probst with Intermountain Healthcare on the Policy Committee.

Paul Egerman – Software Entrepreneur
Paul Egerman, software entrepreneur, and I'm on the Policy Committee.

Judy Murphy – Aurora Health Care – Vice President of Applications
Judy Murphy, Aurora Health Care. I'm a member of the Standards Committee and Co-Chair of the Implementation Workgroup that's holding this hearing.

Elizabeth Johnson – Tenet Healthcare – VP Applied Clinical Informatics
I'm Liz Johnson, Tenet Healthcare. I'm a member of the Standards Committee as well as the Co-Chair of the Implementation Workgroup.

Ken Tarkoff – RelayHealth – VP & General Manager

Good morning, Ken Tarkoff from RelayHealth. I'm on the Implementation Workgroup.

Lisa McDermott – Cerner Corp. – Sr. Architect
Lisa McDermott with Cerner Corporation, member of the Implementation Workgroup.

Judy Sparrow – Office of the National Coordinator – Executive Director
I believe we have a number of members on the telephone. Can you please identify yourself?

George Hripcsak – Dept. of Biomedical Informatics Columbia University – Chair
George Hripcsak, Adoption and Meaningful Use Workgroups.

Judy Sparrow – Office of the National Coordinator – Executive Director
Anyone else? Okay, with that I'll turn it over to Liz Johnson.

Elizabeth Johnson – Tenet Healthcare – VP Applied Clinical Informatics
Good morning. As we start this Implementation Workgroup, we want to look at the goals and ... so on. We had a terrific session yesterday. We'll talk about that very briefly before we move into today's session. First, we'd like to recognize the merit of people that have contributed to these hearings, to the work that the workgroup has done, you see the list in front of you. It's part of your electronic copies at home, but these persons have worked very diligently to bring this hearing to you and to create an environment where we can talk about what's really going on with the attestation process and getting ready for meaningful use, so it's been very effective.

The charge that we took as a workgroup is to bring forward real world implementation experience into HIT Standards Committee recommendations, with a special emphasis on strategies to accelerate the adoption of proposed standards or mitigate barriers, if any. As we go through today, you will see that we have composed the questions to reach this objective. Yesterday we found that that was very successful. We were able to identify not only successes but areas in which we could do further work for the future.

We want to provide a feedback reality test for both the Policy and Standards Committee recommendations. The question really is, does this make sense from an implementation perspective? Are there synergies? Are there concerns? We also continue to encourage ONC—and you heard that yesterday and you'll hear it again today—to make sure that the information that's being discovered during these hearings in our committees is being shared in a universal way. So we continue to push the buzz blogs, the Advisory Committee blogs, the HIT journey, getting stories from you about what's going on out there in the real world. Certainly, we are looking to the FAQs from both the ONC and the CMS, so as those things are being published so will all the testimony and the documents that were provided as part of this hearing. I think you'll find those to be very instructional as you move forward in your implementation journey.

Yesterday we had two panels; today we have three more. First, we heard about the Regional Extension Centers. The panel was composed of both persons who participated in the Regional Extension Centers, ONC's perspective and their leadership in that initiative, and those companies that actually provide those services. It was very informative and we found that our knowledge grew significantly from both the testimony and questions and understanding truly how diverse the Regional Extension Centers are and where their work is really being useful for our implementers.

Secondly, we had a panel on EHR certification, and again we had ONC representation from Carol Bean. We had a certifying group with us to talk with us about the process that they were putting out there for persons that need to be certified, and then we had three persons from the vendor community who had gone through various certification experiences. Both panels were very informative and I think all of us found that we were certainly amazed at the amount of progress that has been made in one year's worth of work and how far we've come in such a short time.

Today we look forward to discovering more of that same kind of information. We'll be looking at Health Information Exchange, again, both from those who provide it and those who are participants in it. We'll be talking to our providers, both eligible providers and those hospital providers, so we look forward to that experience with you today. I'll turn it over to my co-chair.

Judy Murphy – Aurora Health Care – Vice President of Applications
Good morning. I'd like to echo a thank you to all the folks that have participated in setting up this panel, the Implementation Workgroup of course. All these folks do have day jobs. Then in addition to that, in advance of the testimony today I want to thank all the panelists because again all these folks have day jobs as well. So we really appreciate folks taking the time out of their schedules and potentially interesting travel arrangements to make it here in the middle of winter.

Yesterday was extremely interesting. Liz certainly set the stage when she said we're just amazed at how much time has passed on the one hand, and then on the other hand how quickly things have gone. So it's kind of like time flying but what we've all gotten done in one year is absolutely phenomenal. I think we're going to be hearing more about that today, and I look forward to the testimony today, informing I think the nation really in terms of some of the early adopters and the work that's getting done.

I think we all know that when the meaningful use criteria came out the first time there were really two schools and then a bunch of people in the middle. People were digging in and saying, "Hey, we can do this. We're ready to attest. We're going to take what we've been doing and just figure out how to look at the criteria and figure that out." Then there were people that looked at it and said, "Oh my God, this is too hard. We really can't do it." Part of our purpose in doing these hearings is really to bring forward these real world experiences and give examples of early adopters to set the stage as role models for the rest of the country. So I look forward to hearing from our eligible providers and eligible hospitals today in terms of that, but we are of course going to be starting out with Health Information Exchange.

Before we start the panels, I'd like to turn to my other two co-chairs here. During the introductions, we may have skipped over this fact, but there are some Policy Committee representatives here as well. We have the co-chairs of the Certification and Adoption Workgroup, Paul Egerman and Marc Probst. Do you guys have any introductory comments?

Paul Egerman – Software Entrepreneur
Thanks, Judy. I just want to say we had a great session yesterday and looking forward to today. Also, I very much appreciate the opportunity to participate and I appreciate your enthusiastic and energetic leadership. This is great, thanks.

Marc Probst – Intermountain Healthcare – CIO
Again, I appreciate everyone that's put the work together and thank you for being here, particularly the panelists. I've been reading the testimonies that have been put together, and a lot of work went into that. So I'm very appreciative of the opportunity to be here, appreciative of the panel and the questions that have been asked. Paul and I have the responsibility to go back to the Policy Committee and hopefully, have some influence on the directions that we're taking moving forward, so again we're excited to be here and thank you.

Judy Murphy – Aurora Health Care – Vice President of Applications
With that, we will move to the first workgroup panel and John Derr will be doing our moderating.

John Derr – Golden Living LLC – Chief Technology Strategic Officer
Good morning. Thank you very much for coming to the hearing. We have three of our— I think Mr. Fuzy comes from Mississippi and he might have gotten stuck in Atlanta—yes, Judy? He's on the phone, okay. So the order would be: Dr. Coleman, Linda Reed, Jim Fuzy, and then Claudia would be the last from ONC. Dr. Coleman is from Rhode Island and a hospital system in Rhode Island. Linda Reed is a nurse

and she's from New Jersey. She's the Vice President and CIO of Information Services and Support for the Atlantic Health System. Claudia is the State HIE, Office of the National Coordinator.

There is a timing on the right hand side here, and we've been trying very hard to keep to the five minutes. I know sometimes that's a little difficult. I might let you go over about 15 seconds. One of my jobs is to halt you so we can do a lot of questions and answers, which we had yesterday.

Dr. Coleman, if you'd like to lead off, I'd appreciate it.

Reid Coleman – Lifespan – Medical Informatics Officer

Thank you very much. Chairpersons, Murphy and Johnson and Probst and members of the panel and the committee thank you very much for the opportunity to be here. I appreciate the invitation. I'm the medical informatics officer for a four hospital consortium in Rhode Island that comprises approximately 1,000 beds. We have had two experiences with HIEs. There was an AHRQ contract granted to the state of Rhode Island, granted to the Department of Health but managed by the Rhode Island Quality Institute in 2004, and we were very much participants in that project. It is now 2011, unfortunately that exchange has not yet truly exchanged one byte of data, but we had many learning experiences. Our hospital system, which services half the population of the state, has decided to implement its own health information exchange, and when we say health information exchange, we truly mean exchange. We're talking about semantic interoperability and the ability to truly exchange data in a meaningful way.

What we have learned, first, I know that this is a political impossibility but I would really be remiss if I didn't say it, a unique patient identifier on a national basis would be a tremendous help to all of us, and there, I've said it. What we have found in our attempt at implementation is that we owe you folks and the people who work with you a tremendous debt because the availability of standards has given us a mechanism to develop, deploy in HIE and to hold our vendors' feet to the fire somewhat in how we're going to do this. Every time there has been a clear cut standard, it has made our job easier. Every time there has been a standard that is fuzzy or has not been ready, it has made our job worse.

What we have done, very, very quickly is we took our master patient index, because our four hospitals share a common index, and turned it into a master patient index or an MPI. We've provided the practices that we're affiliating with the matching protocols so that they can look up their patients and match them to patients in our system and then we share an identifier. It would obviously help if we had an easier way to do that. We have taken everything that our hospital provides in terms of data to providers and tried to standardize it. We finished putting all of our laboratory and x-ray results as far as possible into LOINC codes roughly nine months ago and I must point out that LOINC was not ready for us. There were a number of things that we view that are standard. Customized stuff is a problem. We created custom codes, but there were standard things that we could not code that there were not codes for. I want to thank Dr. McDonald and Regenstrief for their help, because they have continued to implement new codes to support us, but the standard simply wasn't ready.

We coded our entire problem list into SNOMED, and I thank the National Library of Medicine for providing a core set, but the cross-walk table that they provided is just billers. It doesn't assist clinicians. And to have a cross-walk from SNOMED to ICD-9 that is meant to assist clinicians in creating clinically relevant problem lists is an absolute must. We've also found that because there is ambiguity, or at least alternative in the standards, that our vendors are not ready to accept SNOMED problems. They say, well, gee, the standards say for the first year we can still use ICD-9, so that's what we did. It's created double work, and it would be easier if we had a single standard. We have coded much of our hospital formulary into RxNorm, it's a standard that isn't ready for hospital formulary. We're having better luck with our patient medications, but it is still difficult.

We are now putting all of this information on discharge into a CCD and we're having a little trouble with the standard on the CCD. The first problem that we have is that there is some ambiguity about what goes where in the CCD in terms of purpose of the document, account, what the event is, and this is taking

some work because we're doing this between two vendors, our inpatient vendor and the vendor who has provided the technology for the HIE. A little more clarity around that is going to help. One place that we're really struggling is in the meaningful use criteria that says we will provide a summary of the hospitalization. CCD does not have a standardized place for a narrative summary. If that's what is intended we have been left with coding and narrative summary as a laboratory result and sticking it into the results section. It works, but it's cumbersome for the people who receive it.

So I'm watching the seconds tick down. I will finish by saying we have been successful. We are producing a CCD at discharge, we have a limited number of practices that are incorporating that data into their EMRs, we have physicians who are publishing their office visits in CCD format, and a very small number of physicians who are downloading that information. It works. We've proven the case. We expect to see it move forward, but every time we get clarity around standards and the choice of a single standard, it makes our job much easier. So thank you very much.

John Derr – Golden Living LLC – Chief Technology Strategic Officer
Thank you, Dr. Coleman. Linda Reed?

Linda Reed – Atlantic Health – Vice President and Chief Information Officer
Good morning. Thank you very much for the opportunity to present to you a little bit about Health Information Exchange in the state of New Jersey and at Atlantic Health. I'm Linda Reed. I'm the VP and CIO of Atlantic Health. We're a 2 hospital, 1,000 bed system in west New Jersey, but more importantly, I am the President of Jersey Health Connect. We're a regional HIE collaborative that's made up of about 15 different hospital systems, long term care and physician practices.

As noted in the most recent PCAST report, in other industries the standardization of simple universal methods for the exchange of information across multiple platforms and organizations has resulted in new products that knit together fragmented systems into a unified infrastructure. The resulting network effect then increases the value of the infrastructure for all and spurs rapid adoption. Based on this comment, in my experience this is a very perceptive comment. It's the data that really makes the electronic health record valuable, especially if the data crosses the continuum of care and can knit together all the disparate components of patient care for the care provider. While we are steadily making progress in this area of exchange, there are lots of issues that need to be addressed in the pursuit of HIE, and they fall into a couple of categories. First off, is organizational readiness and provider capability. Second is government criteria and definitions and third is industry capability, innovation and competition.

Today health information exchange is a hot topic and suddenly every company that's involved in HIT is offering an HIE solution. It just proliferates. Unfortunately, HIE is not just about the technology, it also includes the appropriate use cases and the incorporation of the acquired data into a physician EMR workflow. In various discussions with physicians in my organization, it's clear that they want autonomy in choosing the technologies, but they also expect to be able to send and receive data at will. The trouble is that many of them don't know what's required for this or whether they have a capable system. So I think we all agree, step one is to get the physicians on an EMR, but I think we need to make sure that it's a connected or connectable EMR. That's the conversation that we've had with the New Jersey REC very recently.

Approximately four years ago, Atlantic Health began searching for a way to assist our affiliated physicians with the acquisition and implementation of electronic medical records for their offices. As we dug deeper into the capabilities of the infrastructure of many of them, we noticed that they just wouldn't be able to accept a full-blown EMR into their practice. Not only would the workflow changes be too intense, it would impact their scheduling, impact their revenue for an extended period of time. For Atlantic Health this was a conundrum because we had been very successful with lots of HIT over the years, so it was a real challenge to help our physicians. Looking at this quagmire of the EMR, we started looking at technologies that we could bring in to help physicians ease themselves into an EMR. So we brought in the technology that would give them EMR Light functionality. It was a way for them to start doing some

early work, so we started working with that vendor and with other customers of that vendor and very quickly we turned that EMR Light product into a way to also exchange results. What we were able to do was first get into a viewer and then directly into office EMRs if one was present.

So here's an example of our first barrier, it's vendor unwillingness. There are lots of hurdles every time we want to create interoperability between the vendor products. It's not so much the technology, they're all able to receive and send data, but it really has a lot more to do with protectionism and revenue generation. So the first set of challenges really has to do with vendor activities. It has to do with vendor cooperation, the expense to create initial data exchange, ongoing charges for physicians and other providers, and then some of these vendors actually force providers to buy a redundant exchange tool. So the proprietary mindset today with the vendors and their products really doesn't allow for an easy data exchange. Additionally, while certified as interoperable, vendors treat this inter-system data exchange as a one-off and they discourage physicians from pursuing the data exchange because now they are forced to put out high development fees and redundant fees for monthly support.

While there are hurdles, there are also successes. Three years after we began rolling out this technology to our affiliated physicians, we've got about 600 physicians and about 38,000 patients that use it in varying degrees. Physicians can exchange secure e-mail with patients, perform ePrescribing, and have auto renewal for medications. Patients can request appointments online, manage their own personal health record, and opt for Web visits if they're offered. We've also had great feedback from our physicians saying that the connector's record is what really brings value to them.

Given the connectivity is what's really important, a bunch of hospitals in New Jersey, we all came together to put together our HIE. The state tried for over a year and was unable to do so. So we filled the gap. Given that we all were on a similar platform, we decided to use this one vendor and then at the same time the ONC put out a call for the grants and we were able to apply for that and become one of New Jersey's grant funded HIEs. So putting together an organization like this is a lot of work, and it's all being done by the same people who are trying to achieve municipal use for our organizations. We're also trying to help our physicians become eligible providers.

That leads me to a second category of issues noted earlier, and Dr. Coleman had noted it. It has to do with vacillation for HIE through the meaningful use. At first, we thought meaningful use—

We're done, okay.

John Derr – Golden Living LLC – Chief Technology Strategic Officer
Sorry.

Linda Reed – Atlantic Health – Vice President and Chief Information Officer
That's fine, but let me just end up, so meaningful use is very important. We need to continue that. The other thing is the standards again with patient identifier and then very clear standards would be very helpful. I really appreciate your time. Thank you.

John Derr – Golden Living LLC – Chief Technology Strategic Officer
Thanks, Linda. Mr. Fuzy is on the phone?

James Fuzy – Mississippi Health Partners – President and CEO
Yes, thank you very much. I appreciate it. I won't go into a lot of what Linda just said, but I endorse what she had to say. Again, I'm Jim Fuzy. I'm the President and CEO of Mississippi Health Partners, a physician hospital organization comprised of about 15 hospitals and 800 physicians located in Jackson, Mississippi. We pretty much cover the central Mississippi area. As we all know, many of you are aware, Mississippi is ranked at the bottom level of most healthcare status rankings. Just recently, Mississippi was identified as the most obese state. I'm sure that Southern fried chicken and fried catfish have nothing to do with that, but understand, you can't achieve this kind of status without working hard at it. So

let me just say in Mississippi we're not only technologically challenged, but we're also health status challenged, in a state where our providers are often located in rural areas, and it creates a mix of financial and other kinds of challenges.

My purpose today, I want to try to relate to you what our story is and maybe you can use this information going forward, because we're on the absolute front line of providing healthcare. I won't repeat the interoperability thing that Ms. Reed just expressed, but just understand that one of our vendors quoted us a fee of $50,000 to interface with the EMR. So you can see our physicians are alarmed at the interface and interoperability charges that some of these vendors want to charge, let alone the fact that they don't want to interface with us. One of the solutions for that whole issue might be to award hospitals interfacing money because they have the technical ability and understanding of what interfacing actually means and maybe they can carry our physicians across the finish line to success in interoperability.

A second challenge for us is the state HIE. The states were awarded multi millions of dollars in federal grant money, and that poses a serious concern for us because now they're creating an HIE that in many respects may actually be competing with what we're trying to do. In fact, the potential for any state is to align with an HIE that's actually owned by an insurance carrier, like, for example, United just bought Axolotl, Aetna just bought Medicity, and so now here we have all of our patient information from all of our different plans going to one insurance company, which I think is not good. Basically, we have, I think, a situation where the fox is guarding the hen house.

The other thing is, our physicians—this is our data and all of a sudden if we're now being forced to give that data to somebody else, we're losing some of our ability to enhance what we're trying to do because we're trying to create our own HIE ourselves and we're paying for it. If we now have to pay to form another HIE, maybe a state HIE, and I'm going to have to pay twice for the same kind of thing. In many respects, my understanding is the mandate for the state HIEs enhance what's going on in the state and I hope that there's going to be some future direction on what they can do with the state HIEs and coordinate together.

The other thing I want to mention is I've endured several meaningful use presentations and coming away with less understanding than before. I don't know how many of you have actually attended those presentations, but it doesn't take but about five or ten minutes into the presentation and your eyes glass over, what does this meaningful use thing mean, and our physicians are left in the lurch trying to understand what it means. So I think what I might suggest is creating some sort of a meaningful use Guide for Dummies so that our physicians, who are trying to see 30 patients, 40 patients a day, who don't have time to understand all this information, can maybe get a better understanding of what meaningful use means.

The last thing I might mention is stimulus money. We all are out there trying to sell HIEs and connectivity based on stimulus money, and what we're finding in Mississippi is not all of our physicians want the stimulus money. So we've got to be able to create an HIE that brings value not just because of stimulus money, it's got to bring value beyond the stimulus money, connectivity with colleagues, improving the patients' experience, the providers' experience, is all important.

Just to give you a little bit—I know I'm rushing—some of the successes we've had in about six months now of implementation of our HIE, we have nearly 100 providers enrolled and about 2,000 patients enrolled in the system. We're exchanging information, pushing electronic clinical data directly to their patient health record, which we think is pretty important. We're also electronically delivering secure lab results along with radiology, pathology, and transcribed reports to the patients. Our HIE enables the patients to create a Personal Health Record. We think that's important because the patient-centricity portion of pushing this electronic information and technology is key.

So in conclusion—

John Derr – Golden Living LLC – Chief Technology Strategic Officer
Thirty seconds more, Jim.

James Fuzy – Mississippi Health Partners – President and CEO
In conclusion, let me just say I think we need a reasonable timeline for adoption that will mirror the interface technologies and mandate interoperability. We need to simplify meaningful use, require the states to maximize their use of that federal money, and help the local HIEs sustain financially and mandate the insurers to provide funding to the HIEs that they're getting the data from. Thank you very much.

John Derr – Golden Living LLC – Chief Technology Strategic Officer
Thank you, sir. Claudia?

Claudia Williams – ONC – Acting Director, Office State & Community Programs
Thank you so much.

John Derr – Golden Living LLC – Chief Technology Strategic Officer
Excuse me. Jim, Claudia's got slides so I don't think you have them. Does he have the slides?

James Fuzy – Mississippi Health Partners – President and CEO
I've got the slides. Thank you.

John Derr – Golden Living LLC – Chief Technology Strategic Officer
Okay.

Claudia Williams – ONC – Acting Director, Office State & Community Programs
Thank you so much. It's great to see so many colleagues who I spend hours on the phone with, looking over at Walter and others too we work with on various workgroups for the Standards and Policy Committees. I, rather than talk specifically about standards and their implementation, wanted to really frame these remarks around the purposes and goals of this program and some of the implementation issues and challenges we're facing as we move forward. I think this will point naturally to some opportunities we all have to advance both meaningful use in stage two and also our standards expectations.

If you think about the half billion dollars that went out to states, initially that looks like a really big number. But when you put that up against both the meaningful use incentives that are available as well as the huge private investments in exchange, we really need to look at this as a token amount that can leverage a lot of change. One of the things that we've been working really hard with our state grantees on is to not view this as the silver bullet that gets you to a statewide exchange that necessarily everyone is going to be using. But to think in very strategic and leveraged ways about how these particular dollars can unlock other private sector actions and can support policy changes that will expand the use of exchange.

Now, what are we talking about? What we've really focused on in this first stage are three meaningful use requirements. That sounds minimalistic, there's a lot of other stuff, there's public health, but let's just admit that we do not yet have universal labs going into EHRs. We certainly do not have universal exchange of care summaries. While ePrescribing I think we would say we have a national network, we have a lot of use, there are still a lot of pharmacists out there that aren't connected. So this has been a way to really focus our grantees' efforts on the goal of getting every provider a mechanism to get to these three requirements in stage one, whether it's by them providing infrastructure, by a private entity providing infrastructure and unlocking that action in some other way. So we have 56 grantees, all of the states and territories, half a billion dollars. States submitted last year an initial planning phase outline of their work plan. Right now, we're in the process of approving states to go into implementation mode, which means the full complement of dollars will be available, 22 states have been approved to date, so we have a remaining 34 that we're still working with.

I just wanted to talk— Actually let me go first to this slide, which Farzad has a much more beautiful version of this, but I'll use it for a minute. When we look at a state like New York we know they have spent well in excess of probably ten times what we have available to them through their own efforts. So the kinds of building up, community by community RHIOs and then connecting them and creating a state-wide RLF is probably an effort that takes substantially more dollars than what we have available today to states through this. In some cases, there's a lot of state willingness. In Vermont there's a funding stream available that's public and in other places foundations have stepped up, but we have asked our grantees to come up with a very feasible plan to use these dollars that doesn't leave an $80 million funding gap between what we can pay for and what their plan suggests. Often what that means is focusing on the base foundational layers of open kinds of infrastructure, for instance, things like provider directories that might serve multiple exchange activities.

We've been working really hard in the Provider Directory Workgroup that's part of the Policy Committee to outline what an approach would be and a set of initial requirements for what those provider directories would look like. Also, the state is in a unique position to offer a framework of governance, a framework of policies that might assure within both private and public sector exchange activities the kind of public trust we need that's really the baseline of exchange.

We are also seeing substantial uptake among our grantees in use of the direct standard. They're seeing this as a way to rapidly enable a lot of data liquidity in their state and get people in the habit of moving information, whether they're labs or whether they're little small practice providers, so that they can then move to more advanced approaches to exchange as they move forward. We see the bottom four bars as a real foundation and then we see other states, as they are ready, as they are have the resources, as they have public trust and buy-in, moving in to different kinds of architecture around query-based exchange, etc.

I see my time is out, but I want to—

John Derr – Golden Living LLC – Chief Technology Strategic Officer
We have given ONC longer than five minutes. If you have more to say, you're sort of the coordinator of everything.

Claudia Williams – ONC – Acting Director, Office State & Community Programs
Absolutely. I skipped these slides. They essentially go over what we have asked as some of the key roles of our state grantees and the roles of the HIT coordinators. So here's a list, and some of you have heard these probably multiple times, but here's a list of principles that guide, not just the HIE program but really our grant initiatives and our work broadly at ONC. We do not lose an opportunity to discuss these. These were the basis of our discussions at the grantee meetings about the direction of this program.

First is eyes on the prize, and we've said you may have all kinds of fabulous designs for what you want to achieve with Health Information Exchange, but at a minimum we have to make rapid progress against the meaningful use requirements. We cannot do quality reporting, we cannot do patient health improvement until we have lab results electronically within health records' feet on the ground. Here, again, is we need plans that will show us and demonstrate success in the short run. What we have seen in many operational HIEs today is it took them six years to get up and going, and we simply don't have the luxury of that time right now. So our observation, our recommendation to states is build on the assets you already have, find ways to support and leverage the private sector exchange, and look for lighter weight— if the list to get to something is going to take you three years, you probably need to step back and think of a more rapid way to do it. For instance, using push technologies getting messages out and moving to query over time.

Monitor and adapt, we view this as a large scale innovation effort, as a large scale startup venture, and we need to encourage our grantees and all of you, frankly, out in the community to keep an eye on what's

working, be public about what is and what isn't, and adapt approaches over time. Now this is a challenge for any recovery act funded effort because there was a huge incentive to front load the investments and lay out a complete plan from A to Z and work into implementation. We know from a lot of technology work over the years that that is not a secret to success. The secret to success is trying something, see how it works, and adapt it over time. We also see that as you look at a lot of states where there are existing private HIE efforts, those efforts naturally tend to follow along the population clusters in the state. They naturally are being developed by the IDNs and the other already fairly richly developed networks within the state. Often what you see is a vast array of the states—Texas has a sort of white space, Lubbock and that whole area—where frankly there are a bunch of critical access hospitals that don't have capacity to connect. There are a lot of independent labs that don't have the resources to do interfaces, and there are a bunch of smaller independent pharmacies.

So we see, again, the job of these dollars is to say where there's a natural motivation, a business motivation, build on that. Be sure you have the policies that will allow for that to succeed and be trusted, but make sure you focus on those areas of the state and those kinds of both small providers and small data providers that need an alternative or need some extra nudge in funding to move forward. For instance, we're seeing in Texas and in Indiana explicit investments to critical access hospitals and to rural areas of the state to be sure they are not left out as we move forward with exchange.

John Derr – Golden Living LLC – Chief Technology Strategic Officer
Two more minutes.

Claudia Williams – ONC – Acting Director, Office State & Community Programs
Back in our last attempt to give nobody any Christmas, we are known as the Office of No Christmas among folks who know our grant programs, and we did it one more time this year. In November, we put out a $16 million challenge grant opportunity to our current grantees. The idea was that as we look ahead to the kinds of challenges folks are going to be facing there are some cross-cutting issues and domains in which we need to make that rapid progress. We see this to be an opportunity to give small, fairly targeted grants to our grantees, but ask them not just to develop that initiative, but to take responsibility for developing something that's scalable. For really pulling in the kinds of mechanisms to share what they're learning, whether that's just disseminating lessons learned or actually creating reusable technology whether through open source or other means.

The five domains that we've identified are: ... HIE: Actually setting health goals and achieving them, especially around things like readmissions and medication errors. Improving long term care transitions: There's a huge opportunity for exchange between acute care settings, community settings, and long term care settings. Patient access to health information, including things like a scalable platform for ID resolution for patients which we really don't yet have; advanced query, and this picks up a lot of the ideas of PCAST report around metadata tagging, data segmentation, and kind of more granular query. Distributed population analytics: Recognizing that our goal is not just to improve patient care for each one of us, but to rapidly learn what we need to at a population level about what's working. We are just—this week and next—viewing the applications and we'll be making announcements in February about those grants. Thanks so much. It's a pleasure to be here, and I'll welcome any questions.

John Derr – Golden Living LLC – Chief Technology Strategic Officer
Thank you very much. Now, for questions and answers, if you'd put your cards up for questions. I'll start over here with Walter.

Walter Suarez – Institute HIPAA/HIT Education & Research – Pres. & CEO
Thanks again for the testimony. This was one of the sessions I was more interested in listening to because in my view HIEs are certainly one of the cornerstones of all the programs that we're really trying to do. Having electronic health records, as is pointed out in several reports, is very good, but it's necessary to have a way to exchange the data once the data is in this electronic health record. So my question really focuses on one very critical element that I didn't necessarily hear across the board, and

this applies to the testimony provided by the HIE states as well as Claudia by your testimony, and that is the issue of sustainability of the HIEs.

I was looking at the principles, Claudia, that you pointed out and all of those are exactly the types of principles that you need, but I missed the principle, if you will, of sustainability. Of trying to look at how are we going to sustain these HIE efforts after the grants go away and all the money put forth through the stimulus grants goes away, so if you can talk a little bit about that challenge and where are you seeing opportunities this time around. I've been around for almost 20 years and have seen 4 different iterations of HIE worlds, from CHIMSS to CHNs, to RHIOs to all sorts of terms, and clearly, I see that if we have one chance this is the chance to try to make this happen in a sustainable way. So if you could talk a little bit about sustainability.

John Derr – Golden Living LLC – Chief Technology Strategic Officer
Excuse me. Jim, if you want to say something just speak up because otherwise we won't know whether you want to answer, so just interrupt.

James Fuzy – Mississippi Health Partners – President and CEO
Let me just comment real briefly. Our HIE, with our physicians we created a situation where we didn't have an opportunity for a grant. We won't turn one down if we get one, but our HIE is being paid for by our physicians and our hospitals in our network, so we are very concerned about sustainability. We felt two things. One, the physicians had to have a value in the HIE, so they have to see a value because they want to spend the money. But we felt that to help drive sustainability we had to create a situation where the patients would also want to be part of the situation, create their own personal health record, those kinds of things, see value in membership. So for the physicians to see value the technology had to be of value but they also had to have a push from patients that want to participate in this. Because patients now do everything online, why not do healthcare online at times when it's appropriate. So sustainability is important, but let me also say I mentioned earlier if the state's going to create another HIE and then ask me, or force me as a provider to pay for their state HIE when I'm already paying for my own HIE, that's going to be a problem for sustainability for me.

So I think there needs to be a reasonable way—and Claudia and some of the other people were talking about it—those state HIEs that are given multimillions of dollars. There needs to be a way for them to share some of their resources to enhance what the local HIEs are trying to do, especially those like us that are using our own finances. Thank you.

John Derr – Golden Living LLC – Chief Technology Strategic Officer
Dr. Coleman, do you want to speak?

Reid Coleman – Lifespan – Medical Informatics Officer
Very quickly, we're four kinds of HIEs: National: We have no idea what the business case is for national. Statewide: The only ones that we've seen that are successful their sustainability is either taxation or grant funding. Regional: We're aware of only one regional that has really been beneficial, and that's been supported by the individual users and then private, which is what my system is building. We see the private system as sustainable because it is paid for the by hospital system as the cost of maintaining good alliance with physicians, of shortening length of stay, improving transitions of care We are predominantly case rate funded, not per diem funded, and we're developing an ACO. So we feel that income from the ACO is going to repay the expenses that the system puts in. We see a good business case for the private HIE set around a healthcare consortium, we see a good business case for statewide if we can get the insurers, who are the real beneficiaries, to put in the money. We haven't seen that happen yet, so our model is sustainable simply because it's in the best interest of the system that built it.

Linda Reed – Atlantic Health – Vice President and Chief Information Officer
In New Jersey we have multiple HIEs and one of the issues that we find is that we're all going to be competing for the same sources, whether it's payers or other sources. So what we have actually done is

talked to the state HIT commission to find a way to bring this all together so that we can work together for sustainability. Otherwise, we'll all be going to the same payers at the same time and someone's not going to get funded. Dr. Coleman is correct, part of what we've done is private HIEs and we've been funding that through the hospital, but that is only sustainable to a certain amount because it really doesn't get you to expand what you really need to do. So I think our only way to really do this is to sit down together all of the HIEs in the state with the states and to work out a sustainability model together.

Claudia Williams – ONC – Acting Director, Office State & Community Programs
In keeping with our message that our work and our grants need to support meaningful use and that what we're doing is unlocking the movement of information, what we've said to our grantees is actually we care about the sustainability of the verb, of the movement of the information. If that means that your entity does or doesn't exist in three years but the information is moving, to us that is success. So for some who are launching entities that will be the basis of exchange statewide, the challenge then becomes how to show value to the users who ultimately are going to be paying for it. I think that speaks to a couple of things. It speaks to focusing on what they want and need from meaningful use. I think it speaks to the focus. I think it speaks to probably offering more modular kinds of services so that you're not digesting, I may want a quality analytics service, the next person may want a security platform, and we need to find ways to offer things in a more digestible form so that the needs of any particular constituents can be met.

There's also a very natural affinity between the ACOs developing and developing private exchanges in those communities. The concern we've heard over and over again from our state grantees is that's fine and good, but how do we be sure that they're sharing across and don't experience data lock-in. So we have some substantial policy issues to tackle around how to be sure that the ACO requirements moving forward encourage the movement of information to support care coordination, whether that's from a meaningful use standpoint or from the policies around the ACOs themselves.

Likewise, I think plans are viewed as a really important source of potential resources and buy-in and certainly the fact that the MLR supports investments in health IT on the part of the medical loss ratio that is medical care, if it's for quality improvement, is great. I think, though, there's going to be a lot of need again to look at the policy issues around what are the purposes of the information and how do we use it to be sure we support public trust. I think a lot of HIEs focus first on treatment and tread more carefully around how to think about access to information or even data coming from payers. I think we absolutely need to tackle that, but I think we should do it in a very transparent and very clear-headed way.

John Derr – Golden Living LLC – Chief Technology Strategic Officer
Joe?

Joe Heyman – Ingenix – Chair, National Physician Advisory Board
I come from a community that had a grant to do an HIE and we never got the HIE in actuality. A couple of things, one is that we had a situation where vendors wouldn't talk to each other and there was very little cooperation even with the grantor. Then in addition to that, when we started looking at vendors after the first vendor didn't work out, the next vendor that looked like it might work out we were getting pretty interested in that. Then the primary major supplier of EMRs indicated to us that if we didn't use their solution the cost of the EMRs to all of the individual physicians would go up. At the same time, they released the meaningful use stuff and so because we had limited resources it sort of distracted us because we wanted to make certain that all the physicians in our communities would be able to attest that they could do meaningful use. So now, we're in a situation where we're wondering if all the states are going to have HIEs anyway. Why should we be devoting any time or attention or concern about starting an individual HIE within our community and having all of us pay for it, especially if we're going to be found that vendors are going to try to imprison us? So I just was wondering if you had any comments about any of that, any of you.

Linda Reed – Atlantic Health – Vice President and Chief Information Officer

I think that was a huge premise in my talk. We're running into that daily. Just when you think you've built the ladder to get you over the wall, the wall gets taller. So we've tried to work with these vendors, we've tried to put plans in place or agreements in place so that they would only charge us once, try and minimize the expense to what they charge physicians on a monthly basis, but we don't seem to be making a whole lot of headway in that area. Physicians naturally are also now leery to start looking even to acquire an EMR because they don't know which work and which won't work. They're certified as interoperable, but at the end of the day, you now have to pay this huge fee to make it interoperable. So it's just one hoop after another. It's something I think that eventually we'll get to. I'm not quite sure, but I think by making these agreements with different vendors we might be able to get there.

We've had a similar conversation with the state of New Jersey, if this is just going to happen, why should the local HIEs work at it so hard. But what New Jersey has done is they've made the four funded HIEs part of their plan, so it really works for us to put that effort and that time in to be able to do this. I think what we're concerned about is what happens from a national perspective. If it's going to all happen on a national perspective are we all just spinning our wheels for something that's going to happen anyway? We're just not sure, so we're just going to keep working at it.

Reid Coleman – Lifespan – Medical Informatics Officer
We too have faced many of the frustrations that you're talking about. First, in terms of getting over those frustrations, and I don't think that was your main question, this is where people like this committee, this workgroup have helped, because as we get standardized data it is much easier to transmit between EMRs and between practices and between institutions. So our answer to vendors who say, well, it's going to cost you a lot for interfacing, is to say you know, we really don't need you to interface, we're going to do it with Web services, which are free, thank you.

So we're making headway because of the standards and because of the use of things like Web services, but your question, as I understood it, is why bother with a local. The answer is the benefits are there, we're seeing them and achieving them currently, and we would have to wait obviously a while for the statewide to be able to reproduce that. So as Linda points out, we are hopeful that our private EHR, eHealth exchange, HIE, will be able to interoperate on a registry and repository level with others in the state. We'd like to see a statewide registry, but we're going to build ours according to standards to make that possible, and while we're waiting to see if that works we're going to achieve the benefits. So it's really kind of selfish. We benefit from the exchange so we're doing it.

Claudia Williams – ONC – Acting Director, Office State & Community Programs
One thing, I think, has been really evident in the recent release of the new S&I framework and also in the work of Direct, and it's a charge probably right back to this group, is that we all need to reduce the cost and complexity of exchange and we all have a role to play in doing that. I think one of the exciting pilots we're seeing right now in California is our grantee in California, California Health eConnect is using the direct standard with ELINCS, which is the implementation standard for LOINC and then also focusing on care summary exchange to basically do the two meaningful use requirements lab and Care Summary Exchange. And they're going to actually try to study whether the particular implementation they're doing reduces the time it takes to do interfaces, reduces the amount of energy that providers and EHR vendors and everyone has to put in to the interfaces and can get us more rapidly to the kinds of data liquidity we need. So I think our challenge is not just to assume the world as it is and try to grapple with it, but change the conditions that we're operating under in favor of less complexity, lower cost. It's the kind of Clay Christensen sort of disruptive innovation that I think we really need.

John Derr – Golden Living LLC – Chief Technology Strategic Officer
Thank you. Larry?

Larry Wolf – Kindred Healthcare – Senior Consulting Architect
Thanks again for your being here and for the great work that you guys are doing. As many people have commented, getting the exchanges up and running has been a goal of many people for decades, so here

we are saying let's keep at it one more time. I guess I'm concerned a little bit about the reverse disruption that I heard happening, instead of a bottom-up innovative disruption we had a top-down stifling disruption, that there were local efforts that were in play delivering local value and that rather than the states building on that, that they seemed to try to preempt that. I know—at least in Illinois where I'm more familiar with what's going on—that there really has been an effort by the state to support local exchanges and use that as a mechanism to create a statewide exchange. Then look at what the state can add that actually provides value at the state level, if you will, by looking at things like provider registries, because the state's responsible for licensing.

I guess if you could talk a little bit more about how you see that push-pull playing out, because I feel like we're talking about going back a century putting in phone systems. Is it worth having a local exchange or not because I want to talk to the person who's half a mile away, but I also want to talk to my grandmother who's a thousand miles away. So the answer is yes, we need local and we need national. We need international actually as well. So perhaps if you could talk a little bit more about that interplay between the local initiatives that have found value and a little bit of what that value is. Because that really in some ways gets to sustainability and where you actually see the role of the state national as helping beyond simply putting in place some more standards.

Reid Coleman – Lifespan – Medical Informatics Officer

I didn't come here to discuss local politics to any great degree. They do come a little bit into play. Yes, there is a degree of disruption, as you describe it, in the situation that we're facing and it's regrettable. I tried to detail some of it in the written testimony that I provided. The statewide effort engaged a large number—too many might be an overstatement, but engaged a large number—of stakeholders in developing both its governance and consent model. And ended in a position that makes for a very unwieldy process and adopted by committee a technology model that is not in keeping with the standards that we're seeing as part of meaningful use and ONC. So yes, that interaction is disruptive.

I don't believe that it has to be, because I think again, and I'm being a purist, if we're looking for semantic interoperability through Web Services XDS.b type of interchange, then what a local organization builds should interoperate at a statewide level as the state provides the resources to interconnect them. That would be the ideal world. We don't live in an ideal world, and I think that that's why we decided to build. Now, please remember that when I talk about our private HIE we're talking about 50% of the residents of the state, and a state where, by the way, 54% of the residents of the state were born there and 52% were buried within ten miles of where they were born.

Linda Reed – Atlantic Health – Vice President and Chief Information Officer

I guess from a New Jersey perspective we were lucky that the state was a little bit behind in some of its efforts. Because it allowed us to regionally take on some of that planning and put that together and made it easier for the state to say we're going to take the regional efforts, put them all together to create the state infrastructure. So I think having that process work out was lucky for us. I think one of the issues that we have is that there's already four that are funded. There are some out there that are starting to come together as private HIEs that are not considered part of the funding mechanism and where do they go. I think the question is, should every hospital or health system or small provider create a small HIE, or should they have to join one of the four that are already founded.

From a sustainability perspective, I think it's an important question to ask and it's an important discussion to have. It's something we struggle with at the state, should there just be four or should there be six, should there be eight, should there be twelve, how many regional HIEs are too many or too few. So that's something that we're struggling with right now, but I think the concern is really the sustainability. How many of those can you have in place and have them be viable. I think it goes back to your point. So our issue right now is to really work with the state to say how many should there be, how many can we support, and how do they plug up into the infrastructure that's going to be created by the state.

James Fuzy – Mississippi Health Partners – President and CEO

Sustainability and so forth is key for us. The statewide effort actually is causing a lot of concern for us. They've not finalized their direction. In fact, I think next week they have one of the board meetings of the state HIE coming together because they're going to evaluate the fact that an insurance company just bought one of the HIE vendors and how will that play in the market. So that's a significant issue for us. When an insurance company buys the big HIE statewide vendor and the sharing of data sustainability tells me that these insurance companies that are going to benefit from this whole thing the most for the most part are not going to compensate the providers for the data that they're basically—let's just say it like it is—they're stealing from us. Our providers believe the information they have is important and we want to work together with the HIE vendors, but we also feel like we need to be compensated for our data, and that's a significant issue for us. Thank you.

John Derr – Golden Living LLC – Chief Technology Strategic Officer
I wanted to add, the company that I work for is in 21 states and every state is operating differently and every nursing home that we want to put into an HIE has a different way of doing things. Every state is charging us for each nursing home. One state was going to charge us $2,000 a month to get into the HIE ..., so that even is another complexity that happens when you go outside, going a little bit on Larry's national type of thing that we want. Because we have to have some of these standards and also possibly some charge standards. We had that problem yesterday and we were talking about the RECs, each one of them had its own model of charging people to take advantage of the , so just to add another dimension to some of us on the HIE things who do want to cooperate on the HIE.

Do you want to say something ...?

M
Yes, a couple of quick things. First, I think if we look ahead a few years it's not hard to imagine that we'll actually have in place robust standards that are constraining enough in what they say that we actually have a reasonable level of semantic interoperability. And have enough governance process in place that we have a reasonable level of trust established that information can get shared. I think a lot of the how big, how small issues are going to start to go away and we're going to see a lot of consolidation among the HIEs. That those who have a sustainable model will start to grow and acquire others and hopefully the investments that practices and hospitals are making in establishing a connection to an HIE and to moving themselves to standards will actually be the important investment that they're making. Perhaps we should take to heart some of your comments, Dr. Coleman, about we've put out together that SNOMED is where we want to go, but we've allowed ICD-9 and ICD-10 as intermediary standards and that that in fact has muddied the waters rather than clarified things. Perhaps we need to take that to heart as we move ahead with stage two.

Claudia Williams – ONC – Acting Director, Office State & Community Programs
I'm sorry, just one other thought. This is something we think about a lot. In addition to the geographically based efforts, we obviously see huge working investments from each of our vendors, from other national companies like Surescripts, there's a lot of exchange going on that's not regionally or geographically based solely, and I think in the world in the future we will have both. We may not have an operating HIE or HIO in every single community. I think the challenge that that raises is also to be sure we have policies in place that allow for the exchange across these very different types of networks and across those networks in ways that don't create the kind of capture that I think we're worried about, both from a data standpoint and a cost standpoint. So it's not that our job as a government is to lay out what those business models should look like, but looking ahead I think we need to acknowledge that there's both some geographic organization. There's likely to be business type organization around vendors, around EHRs, etc., and we need to think about the set of approaches that can embrace all of that.

John Derr – Golden Living LLC – Chief Technology Strategic Officer
Marc? Just going down the table here.

Marc Probst – Intermountain Healthcare – CIO

Good. I'm glad I'm sitting close to you. Linda, in your testimony you talked about PCAST, and James, he talked about $50,000 interfaces, and Reid, you talked about semantic interoperability, and I think we've talked about standards today, to some degree. But I'm not sure I'm as convinced as Larry or as comfortable with Larry that I see a vision for standards and that really who—and probably this is for you, Claudia, the question—who is really quarterbacking a vision for what standards are in place. What gaps exist in those standards, and where should they be then if we spend half a billion dollars putting technology into our states. But without the real standards to allow that interoperability, I go home and I plug my phone into the wall and it's got a dial tone, and those standards are much more simplistic than what we're talking about, that the vision was there. I guess I'm wondering where that vision is and who's making those decisions and driving those standards.

Claudia Williams – ONC – Acting Director, Office State & Community Programs
Jack always goes to Australia at an opportune time. Let me, and honestly, he and I think I work very closely with them, but I'm not charged with being that quarterback that you described. But let me just describe a little bit from the ONC perspective. I think, first of all, that we have disciplines, our standards work around meaningful use and around the principles, the ones I outlined are similar that remember ... back a year ago talked about. So first of all, the way we continue to think about standards, and I think you see this reflected in the S&I framework, is to say let's start small but super leveraged and get to the things that really matter most for reducing cost and complexity.

First of all, I think the vision is shaped by that concept, that government committees are not well placed to develop standards. We are, however, really well placed to adopt things that are working in the market, so the first thing that we continue to be focused on that chunk of thinking that I think shaped the initial standards work for meaningful use. I think we see a huge lift ahead this year through the S&I framework, through the work with our federal partners, through the work on PCAST, to take what we established from stage one of meaningful use and project it forward. Keeping those principles, keeping those ideas, keeping the idea that our job is not to adopt a bunch of standards that we've envisioned but aren't in use, but to lay out a vision that allows us to incrementally adopt things that are working already.

Now, for something like PCAST that's a challenge, because there are pieces of it and certainly the idea of— I don't know if any of you saw John Halamka's post this morning. He always does a great job sort of summarizing things we're thinking about, but there's a lot of metadata already in the standards that we've adopted but there are also huge opportunities to create some more standardization and more usefulness of that. So who is quarterbacking? I think Farzad, Doug and the rest of our ONC team, working closely with our federal partners, people like Steve Ondra, folks at the VA are quarterbacking, but frankly the work of this group in particular and the work of the Standards Committee is crucial to developing, shaping, making decisions around that vision.

So I would just say when I look at this packet of information and what you guys are able to do, please, we absolutely crucially need your partnership over the next year along those many streams of work. What's working for the meaningful use data that we've already developed, what's the logical next step that comes out of those sets of ten principles that Aneesh laid out. What are the implications of PCAST for where we should be moving—all of those things need to be. I don't think we have answers to any one of those today but we need to work very closely together to figure that out really quickly over the next few months. Does that answer your question?

Marc Probst – Intermountain Healthcare – CIO
It answers my question but there's still a lot to be understood I think. I was just going to go to Reid and ask him, or not even ask him but semantic interoperability, I'm not even sure if I understand that that's the goal of healthcare in the United States. If it is, what are we going to do to get there, because it's very different than some of the standards that we have in place today and it does need to be very well formed. I thought PCAST did a pretty good job of outlining an approach to take, but it happened well past the definition of meaningful use stage one and it's going to create some real challenges as we look at meaningful uses stage two and three. I just think there's a lot of coordination capability that could occur

around standards that if they were put in place we absolutely could achieve more quickly, but that initial step of getting those tightened down is pretty important.

Did you have anything, Reid, on that?

Reid Coleman – Lifespan – Medical Informatics Officer
Thank you for the opportunity and I'll keep it very short. Semantic interoperability data is salt water. You can't drink it. You have to filter it. So sharing data doesn't help us until we share that data in a way that is useful for decision support, for reporting, for measuring, for benchmarking. To do that the data has to be standardized, and that's what semantic interoperability is all about. So you want to give us information, we need those standards and we need them. The more defined they are, the more likely we are to drink the water.

John Derr – Golden Living LLC – Chief Technology Strategic Officer
I'd like to take the prerogative of the moderator to add one more thing. Dr. Coleman and I talked about harmonizing quality measures in this whole thing as well, because there's too many different sets of quality measures and somehow we have to have a quarterback, which I think Janet Corrigan is trying to do at NQF. So we don't have different quality measures that say somebody's normal in one provider setting and abnormal in another provider setting. We talked about that this morning.

James Fuzy – Mississippi Health Partners – President and CEO
Let me just mention, and I'm not a techy person, I'm just a simple guy down here in Mississippi, but I face the docs every day and number one is the cost, I mentioned $50,000, that's not uncommon for the EMR vendors that are quoting us. Number two, even if we get them to the table, to the EMR vendor and our HIE vendor, we're still now in some cases eight or nine months down the road no interface is connected, and it's not because our HIE vendor doesn't want to make it happen. We have one instance where we've got three board members that all have the same EMR vendor and needless to say it's kind of important for me to get that interface completed and we can't get the EMR vendor to cooperate to get the interfaces done. That's just not acceptable for us down here. Our physicians, they don't understand what interface is. They don't understand what meaningful use is. As hard as we try to educate it's really tough. And then throw on top of that interface money, annual fees, upgrades, those kinds of things, it's darn near a nightmare for these physicians trying to understand what's going on with this technology.

John Derr – Golden Living LLC – Chief Technology Strategic Officer
Thanks, Jim. Paul?

Paul Egerman – Software Entrepreneur
This is a terrific discussion, so I want to thank all the panelists, and the last discussion in particular about semantic interoperability was great. I have a very tactical question, Dr. Coleman. You made a comment about patient identification and in your testimony, you said that you make your master patient index available to the other members of the community. It occurs to me, the way your state licensing works, your master patient index probably has in it most of the population of the state of Rhode Island, maybe two-thirds or three-quarters probably have visited your institution. So I'm just curious, how's that working and can you tell me a little bit more about it. Is it satisfactory? Maybe that's the model other states should be doing.

Reid Coleman – Lifespan – Medical Informatics Officer
Very briefly, yes, if you look at our total master patient index we have at least two million of the one million people who live in the state. We loaded 500,000 patients, 350,000 initially, and we're loading the other 150,000. For practices that have an EMR that is certified who can go in to that we've now published this MPI with a matching tool, for people who go into that they can match their demographic records with ours and if they're certain of a match they can link those two so now they have our number. Even though we don't think it's necessary, we have recommended that physician practices get patient consent to do the matching. We don't think that's necessary, but—

Paul Egerman – Software Entrepreneur
... you did that, but that's ....

Reid Coleman – Lifespan – Medical Informatics Officer
What we found is that well over, and I keep saying over 90% because we don't have real good statistics, the truth is most practices say nobody objects, that everybody just says, sure, doctor, if it's going to be able to share with my other doctors this is great. It's commercial. We have an outpatient lab business that also has a penetration of about 40% of the state, so we are using a uniform number for laboratory data, x-ray procedures, and exchange of information with just about every one of our 1,700 doctors who have got an EMR, which is about 600 of them. So we're sharing that MPI with 600 doctors right now. Does that answer your question?

Paul Egerman – Software Entrepreneur
Yes, basically, and I don't know if I got this right, it sounds like you have a voluntary statewide patient identification system.

Reid Coleman – Lifespan – Medical Informatics Officer
We have a voluntary enterprise-wide information exchange. Everything that we have done we have offered to share with anybody who's interested. When we LOINC'd our labs, we offered to the private labs in the state that we could share our code. It just was much easier for us to have everybody using a code than it was to force them to re-do the work. We have offered access to the information to other exchanges. We have not offered the file itself.

Paul Egerman – Software Entrepreneur
You say other exchanges, have you considered the insurance exchange that will come soon to your state?

Reid Coleman – Lifespan – Medical Informatics Officer
The only insurance exchange that I'm aware of—and I'm sorry, the business side isn't my field—is NHIN, which is an insurance information exchange. That information has been available, I don't know, how long has NHIN been around?

Paul Egerman – Software Entrepreneur
I don't know either.

Reid Coleman – Lifespan – Medical Informatics Officer
So we've been sharing that part of our MPI for years.

Claudia Williams – ONC – Acting Director, Office State & Community Programs
I just wanted to make a comment. We also have some patient matching technologies and what we've found is that it's still manual so we have had issues where physicians go in and they try to match up their patients and they still match them up incorrectly and then we've had to go back and unwind them. So there still is opportunity for more standards and better technologies around patient matching.

Linda Reed – Atlantic Health – Vice President and Chief Information Officer
I know two things. One is that I just wanted to tee off something you said, Paul. Insurance exchanges and information exchanges very unfortunately have the same acronym, and that's led to a lot of confusion among ... new coming in governors, who think they can be exactly the same thing. We've actually been talking a lot to our grantees about ways to align and leverage the two. One clear area is security services in both patient and provider ID resolution, where clearly from quality reporting on the benefits exchange side to patients actually accessing the insurance portal that's envisioned, to the extent that there is infrastructure being developed through these grants that we're giving out there's a real opportunity to leverage. I think also, though, this confusion isn't helping because poor states are under such pressure

to launch those quickly that they're just sort of trying to find somebody who has the right acronym and throwing the dollars in that direction in some cases. So I think there's a real opportunity to think thoughtfully about how to align the two and be sure that the kinds of IT investments that are being made at the state level really work to support our goals, both on the ACA implementation as well as on information exchange.

John Derr – Golden Living LLC – Chief Technology Strategic Officer
Judy?

Judy Murphy – Aurora Health Care – Vice President of Applications
I think I've got this right, but I just want to check my thought here. I think I hear all of what you're saying. Dr. Coleman, you started it with where there's clarity around standards it's easy and when it's ambiguous or flexible it's much more difficult. You were talking about the HIEs and you were talking about the vendors, so I just wanted to get the thumbs up that that was the message we should take back to the Standards Committee, stop with the flexibility and be prescriptive, so we can move forward.

Reid Coleman – Lifespan – Medical Informatics Officer
I'd rather work with a bad standard that everyone had agreed to than to have three standards and not know what we're doing. If you want to know what good standards are, I'm glad to give you my opinion. But what I really want is that we're all working towards one standard, yes, you've got that straight. Thank you.

Judy Murphy – Aurora Health Care – Vice President of Applications
Is there agreement?

Claudia Williams – ONC – Acting Director, Office State & Community Programs
Yes, there is. There appears to be some kind of standards today, but our vendors have opinions of what those standards are. So again, that's where the interface cost comes in. That's where the monthly maintenance comes in all the time. So again, one bad standard that everybody has to adhere to is better for us.

John Derr – Golden Living LLC – Chief Technology Strategic Officer
Liz?

Elizabeth Johnson – Tenet Healthcare – VP Applied Clinical Informatics
One of the things that we have not had a chance to talk about, and again, like Paul, I'd like for us to be tactical in this discussion so we know what we need to do, is security. It's alluded to in your testimonies, we've certainly talked about several other aspects, but I know there was concern about security. I wasn't able to pull out of the document what specifics. We need specifics, please. Can you provide this, Linda, Reid, Jim?

James Fuzy – Mississippi Health Partners – President and CEO
Let me just bring one thing to light that I think is important. When you go to do banking and you want to put somebody else on that account, both people need to go to the bank, sign the card, and now you have access to that account. It's much different in many cases in an Internet type environment, and sometimes people sign on from remote sites and if spouses share information one day they might want to share, the next day they might not. So I think there needs to be some—and we're working with this right now with our HIE vendor to try to formulate stringent requirements or rules when our enrollees want to sign up for the service. So that we can make sure that the actual person that's asking or wants to access that personal health record is the actual person that's doing it. It's hard to police, but that is a significant issue and we don't have an answer yet. When you sign on, you sign on that it's you, that kind of thing, but there's always the possibility that that's not that person and will the provider and hospital be at risk when that happens. So that's an issue we are concerned about in security.

Claudia Williams – ONC – Acting Director, Office State & Community Programs
This is an area where there have been several distinct streams of work, maybe from the ONC side there were the meaningful use security requirements. There's the work of the tiger team, which I think is threading into work for the Standards Committee, and then there's what's going on out there in the field in terms of things like encryption and auto logs and authentication matching, and what seems to be working and what doesn't and what's the variability and practice. I do think the opportunity we have over the next year is to sort of knit those together more closely and set out a strategy and agenda for getting to the kinds of minimum bar we need for security.

Also, I think many of you know that the newly as part of the HITECH HIPAA changes a lot of HIEs, not everyone, now fall under the security rules under HIPAA. So there's also a set of requirements that are being thought through and figured out, and I think for many of the entities, they're just trying to figure out do they fall under that or not. There are also new requirements around business associate agreements. So I think it's a somewhat shifting environment and landscape, but one where we need to pull in these different strands of work and lay out I think—Joy Pritts in our office and her colleagues who work on security are thinking really hard about this. We see, even with ONC, there is some of this in the standards side, HIE side, the policy side, and Joy, just like the rest of the world we need to knit those things together.

James Fuzy – Mississippi Health Partners – President and CEO
Let me just add one other thing, because all of that's important, the problem we have, at least the reason I lay awake at night, we're putting an HIE in place and a lot of this is being developed on the go. So what happens if tomorrow somebody shares information that's not supposed to be shared because there wasn't a proper algorithm in place to make sure that's the right person, and then all of a sudden now people are starting to get sued. So here we are trying to put an HIE in place and we're still trying to figure out security. We all better get this worked out pretty quickly, I think.

Claudia Williams – ONC – Acting Director, Office State & Community Programs
I have a couple of things. One is that when I was talking about the patient matching issue before, the same thing, the patients were matched incorrectly. So then we pushed information to the patient health record, so now you've pushed the wrong patient information to the patient's health record. So now, you've got all those issues that come from that. Our other issue has to do with since we're a collaborative it's the lowest common denominator. So some hospitals can afford more security, others cannot, so what is the lowest common denominator that you have to have to keep that whole collaborative .... So those are the two issues I think that we struggle with the most.

John Derr – Golden Living LLC – Chief Technology Strategic Officer
Just for a time check, we have about ten more minutes. Cris?

Cris Ross – LabHub – CIO
Thanks, John. I really appreciate the conversation and viewpoint today. I think we're having a candid conversation around HIEs, which is terrific. A question I want to go back to is the issue about the proliferation of HIEs, and I think each of you talked about the conflicts that are inherent in having multiple HIEs. We had a conversation about sustainability and that the sustainability that some of you pointed to is enterprise sustainability, that a private enterprise can support itself. I sometimes fret that half a billion dollars is a lot of money even in an ARRA world and that we're incenting the construction of a lot of infrastructure but we don't have practical incentives for exchange of data, other than perhaps within an enterprise. So taking the optimistic view that that may be a sustainability model that might work in some fashion as private HIEs that are somehow synchronized with statewide or public HIEs, I wonder about and I worry about and I'm interested in your viewpoints about the independent practice that isn't affiliated with one enterprise, or may want to be affiliated with multiple ones and has an even more daunting challenge, low resources and the need to connect to one place.

John Derr – Golden Living LLC – Chief Technology Strategic Officer

Excuse me, Cris. I made a mistake. I was looking at an old agenda. We have one minute instead of ten minutes.

Cris Ross – LabHub – CIO
Then I'll stop. Tell me what you think.

Linda Reed – Atlantic Health – Vice President and Chief Information Officer
That's one of the concerns that I have too because that goes back to all those fees. So if you're a physician practice that straddles multiple counties or your practice area do you have to belong to more than one? We've had this conversation in New Jersey, and I don't think we've resolved it yet, but who do you belong to? One of the things that we've asked as one of the four funded HIEs is that you funnel through one and then the one HIE has to work with all the others to bring that data through and across so that you only have to incur the expense of one. But we don't know if you're going to have to belong to multiples, or if you have to then incur the expense to connect up to the multiple HIE vendors that each one has. So it's an ongoing concern and it's an ongoing conversation we're having in New Jersey.

John Derr – Golden Living LLC – Chief Technology Strategic Officer
I'm sorry, David, I didn't get to you.

David Kates – Prematics, Inc. – Vice President Product Management
Do you want me to ask a quick question?

John Derr – Golden Living LLC – Chief Technology Strategic Officer
Well, if it only takes a—

David Kates – Prematics, Inc. – Vice President Product Management
In 15 seconds, both Dr. Coleman and Linda mentioned— Dr. Coleman, you mentioned that there's value inherent in the exchange of clinical information that you're deriving absent the meaningful use criteria. And Linda, sort of correlated to that you mentioned concerns and fears about practices, hospitals that are acquiring systems that aren't interoperable or have the capacity to be interoperable. What can ONC or the RECs or this committee do, briefly in the time remaining, what are some of the two or three key messages that the entities that exist to communicate the value and the importance of interoperability and connectivity do to support the value proposition that you're describing?

Linda Reed – Atlantic Health – Vice President and Chief Information Officer
I guess I would say the whole certification process. If you're a certified EMR shouldn't you be interoperable, and what does that mean? So if you're certified this is what it means, you have to be able to exchange data. Does that mean that you have to now incur a $50,000 interface expense? I don't think so. If it is then why are you certified? So the certification criteria I think is important.

Reid Coleman – Lifespan – Medical Informatics Officer
I'll give you a 15 second answer. If everybody is certified and truly certified so that we can use this standard, and I'll just grab an XDS.b, a good standard, Web services, then all that we have to do to make all of the things work across the state is provide a statewide registry and that we can do with the money that's been given. So if there's a statewide or a regional registry then the repositories can be functioning independently and we use standards for communication and it does work. It's more than a pipe dream, but we're a long way away from realizing it. A unique patient number would help.

John Derr – Golden Living LLC – Chief Technology Strategic Officer
Thank you, very, very much, panel, and to Jim on the telephone. We really appreciate your time and effort .... Thank you very much.

Judy Sparrow – Office of the National Coordinator – Executive Director

If the next panel members would come and join us at the panel table, please. If we can bring everybody to order, I think we'll get started. If everyone can take their seats, we'll get started with the next panel.

Ken Tarkoff – RelayHealth – VP & General Manager

Let's go ahead and get started. This panel is panel 4a, which is the "Early Adopters of Meaningful Use Seeking Attestation in 2011- Eligible Providers." I want to thank all the members of the panel for participating today. I want to start off from the list: Dr. Whitley from Hill Physicians in San Francisco is joining us; Dr. Berkowitz from Northwestern; Dr. Murry from Hunterdon Healthcare; Dr. Hammer from Southern Delaware Medical Group; and Josh Seidman is on the phone—is that correct? Yes—participating as well too. So again I want to remind you five minutes to your initial testimony and we'll try and keep to that time and then we'll open up to questions.

Dr. Whitley, if you'd start, please.

Careen Whitley – Hill Physicians Medical Group – EMR Clinical Liaison

I'm pleased to be here today participating in this hearing as a practicing physician using a certified EHR, and as a member of the Hill Physicians Medical Group in Northern California. Hill Physicians is one of the nation's largest independent practice associations. Hill strives to support its individual physicians in their efforts to improve clinical outcomes and increase efficiency.

Although the final rule is much less stringent than what was originally proposed, I am concerned that the task at hand remains fairly daunting. While individually the measures seem attainable, meeting all measures to receive payment is a very demanding goal. Having participated in previous demonstration projects such as MCMP and PQRI, I feel the bar from meaningful use is considerably higher. Reporting is a burdensome, albeit necessary task and involves not only collecting the data but making sure it is documented in the correct field. In many cases, documentation will require extra steps and thus more time from providers, thus increasing the administrative burden and not improving quality of care. Lastly, providers or their staff are tasked with extracting that information to report to CMS, another labor intensive task.

One barrier to physician participation has been physician distrust of government, and CMS in particular. There is a growing perception that Congress will rescind funding from meaningful use, or that monies will run out before providers are able to quality and their efforts would have been in vain. Many providers who participated in PQRI have been very disappointed in the payment for their efforts. As already mentioned, many of us at certified EHR we're using the NextGen ambulatory EHR, which was one of the first to be certified for meaningful use. But the certified application software is only now being released for general use. As a result, we have not yet installed the required updates and as others have said, this committee should be mindful of the fact that this is true of many EHR vendors not just the one that we use. While I understand the pressures that vendors have been under to produce a quality product, this still leaves our organization unprepared to meet the expectations of our users.

One final area of concern relevant to California based groups such as Hill Physicians is the Medicare Advantage issue. Hill providers care for Medicare patients through both traditional Medicare products and Medicare managed programs. For many practices, a significant portion of their Medicare patients come through Advantage contracts held by Hill Physicians, and as such, they do not meet the requirements and thus are only able to report on traditional Medicare patients. These practices are squarely at a disadvantage and may not be able to receive incentives at all. Even though at this moment I do not meet the qualifications of meaningful use, I can say that using an EHR has taken me down a path of delivering better quality care to my patients in what I personally call meaningful. Although I am pleased that the federal government is realizing the importance, I can probably say I began working on accomplishing these tasks before ARRA ever came into being. NextGen and RelayHealth have obviously been valuable partners in helping us to achieve our successes.

As this committee and others to develop guidelines for stages two and three, I'd like to recommend the following. It is important to make sure that other entities are motivated and able to partner with providers to be successful. For instance, public health departments need to be able to accept electronic communication from physicians and in a manner that allows our EHRs to talk directly to their systems. Hospitals, pharmacies, imaging centers, labs and other ancillary services need to be incentivized to share data with providers. Barriers to sharing data need to be torn down so that patients do not continue to have duplication of services. This more than anything will lead to huge savings in our healthcare system. In addition, when guidelines are developed and finalized, consideration needs to be given to the time needed for all the required parts to be available to the end user. Obviously, our vendor partners need time for development and distribution of the tools needed. Providers in the supporting organizations then need equal time to make these tools function in their individual environments.

I'd like to thank you for the opportunity today to share my thoughts and I appreciate your interest in what we've said and your enthusiasm for what we've presented so far. Thank you.

Ken Tarkoff – RelayHealth – VP & General Manager
Thank you, Dr. Whitley. Dr. Murry?

Robert Murry – Hunterdon Medical Center – Medical Director, Informatics
Good morning and thank you for having me here. Thank you for asking what the early adopters are thinking. I'll try to be brief, and there's more information in my written testimony. Let me start by saying that I believe that electronic health records could revolutionize efficiency and quality of healthcare in the U.S. I agree with the concept of meaningful use and think that the stage one measures were thoughtfully constructed. But I want the Standards Committee to understand the pressures that the rapid time frame is placing on providers, vendors and the healthcare system.

At Hunterdon Healthcare, we're three years into a four year implementation of NextGen ambulatory EHR, with three-quarters of 170 providers and 30+ practices live, and nearly a quarter million electronic visits in 2010. We will attest to meaningful use beginning in May of this year, and I anticipate that all of our EHR live providers will attain it. Some of our practices will need to change operations to meet some measures. Core measures 7, 8, and 9 will force practices to start routinely recording race, ethnicity, and preferred language, to change workflow to measure height, and to start obtaining the smoking status on teenagers. Core measure 13, which requires physicians to provide clinical summaries to the patients for each office visit, will be our biggest challenge. Getting physicians to write a plan in a patient-friendly, patient readable form and to answer orders in a timely fashion will be difficult, but will also reduce confusion and improve patient care.

Despite our robust and highly functional implementation, meeting meaningful use required two upgrades through our NextGen system, as others have said. This time pressure was extreme, because the final stage one criteria weren't released until August or July and a description of the measures that was detailed enough for me to operationalize, not until November 7th. Normally, it would require vendors months to go from design specifications to release of software and it requires healthcare organizations of any size months to go from release to upgrade. So when the measures suggest upgrading EHR software, this is not like upgrading a Web browser or word processor, the complexity involved makes it more like upgrading the engines on an airplane while it's flying. In fact, meaningful use has actually slowed down our EHR implementation, since our team cannot both manage upgrades and support go-lives.

Other large early adopter organizations that I'm in contact with report the same unintended consequence. Another undesirable meaningful use outcome affects our pediatric practice, and despite high volume, they will not see any meaningful use incentives because the Medicaid population is too small and in part due to this they keep get pushed to the end of our go-live schedule even though clinically it would be very helpful to have them on board.

Yet despite the negatives of the aggressive meaningful use timeline, incentive payments have certainly motivated practices in our area to join our enterprise and to adopt EHRs sooner than they would have otherwise. For practices that are already live the payments make the engine upgrade more tolerable and they are incentivizing them to adopt features that are inconvenient to implement. The committee asks about implementation methods, and I want to stress that an important factor in our success has been having clinical informaticists on our team. Physicians need to have someone able to speak medical language and understand their workflow and their pressures but are also able to speak information technology and to prioritize development and resources. The U.S. wants widespread meaningful use more physician and clinical informaticists are needed to implement and to design and develop and test and certify EHRs.

Finally, I hope that the stage two and three certification process addresses the desperate need for more robust standards and specifications of clinical data exchange as has been discussed this morning. The possibility for improved patient care from easy but robust communications between systems cannot be overstated. I also hope that the certification process for the next stage includes more real world testing of overall and specified particular functionalities by practicing clinicians.

In summary, I applaud the efforts to improve healthcare in the U.S. through meaningful use. But we must remember that every specification creates work for vendors, physicians, and healthcare systems and drains resources away from other worthy projects. The measures need to be few, carefully constructed to encourage the type of EHR implementation that improves communication and patient care and released with more lead time than stage one. Thank you for this opportunity and I anticipate your questions.

Ken Tarkoff – RelayHealth – VP & General Manager
Thank you, Dr. Murry. Dr. Berkowitz?

Lyle Berkowitz – NMPG – Medical Director, Clinical Information Systems
Good morning. Thank you for having us all here. We really appreciate it. I think it's great that you guys are trying to get out ahead of the curve here. My name is Lyle Berkowitz. I'm a primary care physician in Chicago. I'm the Medical Director of Clinical Information Systems from my group. I'm also the Director of the Szollosi Healthcare Innovation Program, which is about trying to think about how to use EMRs and other systems in innovative fashions. I'm here today as a Meaningful Use Wannabe, or MUW, to tell you what we're doing, what excites us, what scares us, what confuses us, and maybe how you can help us.

My group, Northwestern Memorial Physicians Group, started in 1995 with 12 physicians. We now have about 100 providers, but the core's 40 internists we expect to qualify for meaningful use later this year. We also have 10 Peds who will not qualify because they, again, don't have enough Medicaid patients. We also have OB/Gyn and Derm who are not going to be ready this year because of the difficulty of trying to meet these measures. We've been using electronic medical records since 2003 and secure patient messaging since 2006, so over 50,000 patients signed up for secure messaging. What excites us is indeed this is a good stimulus. We have a lot of energy, focus and resources to help us update our system this year, which we probably wouldn't have otherwise. Also, I appreciate the potential for innovation, particularly around collecting specific metrics and outcomes because that can facilitate innovative thinking along the lines of you can't improve something if you can't measure it. We already have a number of examples of our organization about that.

What scares us, or at least challenges us, as was said by others, research limitations. It's a zero sum game. Putting time and sanction on this project means less resources that can focus on other projects. Second, change management in a short period of time that increases risk: Even though we've been using the system for seven years, we're about to introduce multiple new functionalities and workflows into a very complex system in a short period of time. Recent reports show medical malpractice insurers are actually raising rates for people implementing EMRs because they're so scared about the risks associated with it. More specifically, we're worried because our vendor, like others, had to create a lot of new functionality to meet any requirements and we won't roll those out still for a few more months. We're

frustrated by not knowing exactly how some of those will look or act in our particular system and how much work it will take for us to customize these new functions and the workflows to make them work in our group. Additionally, remember as long term users of the software, while you'd think that would be good upgrades are actually technically harder for us because of various customizations we've made over the years. So it begs the question, will we need more time?

The next challenge is helping vendors and the government understand that functionality is not the same as usability. I'm a bit of a usability freak, so this is a big one for me. There's a big difference between whether something can be done and whether it can be done in a useful manner. So let's consider, I'll give you an example, smoking status documentation. A vendor can create a little form that they can get certified, but if that form's outside my workflow it's poor usability. If they create something within my workflow it's good usability. The same functionality can have very different usability, but an EMR vendor can get certification whether their functionality has good, great, or poor usability. I know the government's trying to look into usability requirements for further certification process, so I just want to emphasize to this committee the immense importance of doing so.

With respect to getting responses from ONC and CMS, we've reached out to them for clarification on a few issues. We get an auto replay saying not to expect an immediate answer, and they were right. We have not heard from them yet. While the published FAQs are going to start, and I saw multiple other options right now, it's not enough information, we're not getting enough response, and I'd suggest consolidating everything into a content management system that really keeps a good list of questions and answers and really expands the FAQ concept, because there are a lot of questions. In fact, I'm going to end with three major questions that cause confusion in our organization and others who I've spoken with have said similar.

One, do we have to use the vendor's defined functionality? If a vendor's certified, do we have to use the specific functionality they have? For example, do we have to use that smoking form that doesn't work in our workflow, or can we create our own? Use of scribes or other intermediaries, there are several areas where MU requirements say only that a physician can enter something into the EMR. But that's always not the easiest workflow, and a lot of people are starting to use extenders of some sort during a visit. For example, can a scribe type in data and create orders on behalf of the physician? As long as the physicians use all decision support alerts and signs everything? … visit, can we use an intermediary to review the pretext and help fill out forms for quality analysis? This can make a big difference. Finally, when and how will true care coordination functionality be included in the MU requirements? We use the EMR for care coordination, and it's been very successful. However, very little in the current requirements addresses issues outside of data sharing so that's not true care coordination in our minds. So I encourage you to consider this type of functionality and behavior and how can we better incentivize both via the MU requirements as well as of course by general healthcare reimbursement reform. Thank you, again. I look forward to discussing it in more detail.

Oh, one other thing, I'm going to show you one slide. This is a large group. We have lots of resources. We've been using EMR for seven years. We have maybe 20% to 30% of MU billed right now. All those red spots and yellow are what we need to work on over the next couple of months.

Ken Tarkoff – RelayHealth – VP & General Manager
Thank you, Dr. Berkowitz. Dr. Hammer?

Scott Hammer – Southern Delaware Medical Group – Co-Founder
Good morning and thank you for my inclusion. Although I'm hearing some common themes, I think that I probably am representing the little guy here. I am one of the two founding physicians of a four member group just across the Bay. When we founded Southern Delaware Medical Group, we decided very early in the process that an electronic health record was to be an integral part of our practice. Working with the Delaware representatives of Centers for Medicare and Medicaid Services we chose A4, now Allscripts, as our vendor. The same system my residency had chosen and that my former employers chose less than a

year after we did, ironically after saying they would never go electronic. All practices, regardless of size or resources, relate frustrations of the implementation of their EHRs. Even new practices without the task of transitioning workflow and paper charts have their challenges. Relatively speaking, and with the benefit of hindsight, I can say that our transition to electronic practice has gone as well as one can expect.

That being said, our challenges with the EHR have not ended with implementation. Continued and sometimes hidden costs, server crash, and a vendor whose customer service seems to have lagged in recent months, maybe because they're redirecting resources to engineering, are but a few of the challenges we have faced over the last four to five years. Through such technologies of electronic prescribing, access to the patient record from home and from here in the center, and an automated appointment phone reminder system, automatic medication interaction checking and the ability to electronically receive lab and radiographic results, efficiency, and patient safety have improved in our practice. Our scheduling, patient records, and billing systems are fully integrated. I'm proud of the fact that we're among the first practice within the nation moving forward with an EHR. I'm also proud of the state of Delaware, the Delaware Health Information Network, and the potential we have to truly serve as a role model for the rest of the nation when it comes to creation of an integrated patient center electronic health record. There's no doubt in my mind that Southern Delaware Medical Group is using electronic health records in a meaningful manner. At significant personal expense our practice has led the way in the implementation and use of an EHR and we've also seen some financial return on our investments, receiving some incentive money via the Physician Quality Reporting Initiative through our involvement with CMS and through the use of our EHR.

As an early adopter who's taken our share of leaps of faith when it comes to the use of an electronic record and as I practice preparing to attest for meaningful use in 2011, I'm hopeful that efforts will be realized even further in the coming year. While I've come to understand that a comprehensive EHR is very important as we collectively move forward, I have the same concerns as any small business owner. Our margins are slimmer than one might expect and our reliance on Medicare and Medicaid dollars is significant given the demographics of our practice area. Our practice is 44% Medicare and Medicaid and given the nationwide disparity in private insurance contracts, our incomes are at the fifth to tenth percentile. The unexpected cost of a new server led to my partner and I not getting paid early last year and continued uncertainty regarding the SGR formula had made things quite uneasy. Uncertainty is rampant. While I do not expect the panel's pity regarding our salaries, I do wish to point out that 44,000 per provider over five years could be very significant, provided that money actually is intended for and reaches medical practices. It is my hope that the meaningful use funds have been made available to supplement practices such as my own, allowing us to be more successful in the recruitment and retention of new physicians and dynamic staff and to continue to get the leading edge of technology implementation.

A question that I think bears asking is whether the meaningful use dollars are intended for practices of the award as an incentive or whether they are intended for medical practices at all. In terms of patient care and documentation, I have no doubt that we are using our EHR in a meaningful manner. It concerns me, however, that more and more time and financial resources seem to be required to prove meaningful use. As some examples, our EHR vendor is charging an additional $1,500 setup fee and $200 per provider per year maintenance fee for its meaningful use package, which although advertised as optional hardly seems as such. This over and above the thousands of dollars we have already paid and continue to pay our EHR is compatible with one or two MU focused patient portal companies who are now charging more than $1,000 to $2,000 per provider setup fee and $100 to $200 per provider per month maintenance fee. Our local tech support charges more than $100 an hour. Even the REC, although supplemented, would be $100 an hour if it weren't, we pay $10 an hour, but again more cost. Based solely on my average daily billing, not collections, mind you, I would estimate the above costs to translate into roughly one to two extra weeks of work per provider in our practice.

While I understand that some of the CMS requirements have been simplified. To the amazement of us owners, I feel that there are still several expectations that are perhaps more difficult and expensive than they should be and I feel that an attempt should be made to ensure that the net meaningful use dollars per provider remain significant enough to provide a true incentive to practices which currently teeter on the fence. At this point $8,800 per provider per year of meaningful use incentive is easy to see being taken out by the additional cost of trying to prove meaningful use.

Southern Delaware Medical Group is moving forward with optimizing the use of its EHR and will continue to do so because the process has already been started and we believe in it. In order, however, to recruit new practices into adopting EHRs and working towards meaningful use, the definition of what is meaningful and practical for government, private practice, and patient needs to be further refined and simplified, or we need to consider making financial incentives greater, a prospect which seems unlikely to me. CMS may consider making its definition of meaningful use more complicated after EHR adoption is more widespread, but while it's still in its relative infancy we should be honestly rewarding practices which are fully using EHRs for the risks that they have taken, and continue to take, and we should be honestly incentivizing those that are interested. Thank you for your time and the opportunity to testify.

Ken Tarkoff – RelayHealth – VP & General Manager
Thank you, Dr. Hammer. Josh, are you on the phone?

Josh Seidman – ONC
I am. I will just make a few brief comments. I apologize for not being there. I think that the comments related to the amount of money available and the amount of money that is required certainly is something important and something that ONC and CMS have been working on to try to think about how do we engage the private sector. We recognize that the federal government is the catalyst here, but in order for meaningful use to fully work, it needs to be something that ... engaged fully partners with the private sector. We have been doing quite a bit with health plans, as one example, to think about how their pay for performance programs synergize with ours and some health plans have announced that they will in fact be using the same objectives and measures for meaningful use to fulfill their pay for performance programs as it relates to Health Information Technology. So in some cases going as far as to say that they will accept the attestations to CMS for their program.

In addition, another way that we're working with health plans, if you think about the other levers that they have, certainly HITECH has certain levers for us, but we don't have levers with respect to, for example, the labs and the pharmacies. So when we hear from the provider team about the difficulties in some areas of having pharmacies to which they can electronically prescribe, or having labs from which they can get structured laboratory data, we recognize that this is something that we want to help facilitate as much as possible for that to be within the provider's control. So we are in discussions with health plans around how they can participate by using their leverage and their contracts with their labs and pharmacies to work on that and help make that possible.

I think that we certainly recognize that there are going to be a lot of bumps in the road, certainly with small practices in particular, and so that one of the reasons why we have per our regional extension program a focus on those providers and those ... populations. We do hope that through the new programs that we can help to support them, partly by helping them to test out the application process in advance and try to get that process ironed out ahead of time. I think that there is certainly a lot of challenges in making sure that those kinds of issues are identified in advance and that they can get through that process in a different way. I'll let CMS speak for itself, but I think it is important to note that some of the Medicaid programs have begun to provide incentive payment for adopting … upgrade already. That began last week, and of course CMS is getting prepared for after the 90 day reporting period … shortly thereafter and I think that that will be important in restoring faith around this program as we look forward. I look forward to answering any questions about it.

Ken Tarkoff – RelayHealth – VP & General Manager

Now, I want to turn it to the Q&A session. I just want to remind everyone that when the questions are asked, that it's not required that everyone answers the question across. I'll try and cut off the question if we've had enough answers on it to make sure we get enough. We are going to start from the other side this time. So, David, you get to go first. We'll go around the horn, start on this end and send it back down there.

David Kates – Prematics, Inc. – Vice President Product Management
Thank you very much for the phenomenal testimony about the written testimony that was submitted and today's oral testimony. It was very insightful. One of the questions I had, it sounds like there's certainly a delta between installing a certified EMR, EHR system and achieving meaningful use. I'm wondering whether there are communities of resources that you have focused to reach out to in order to help you cross that chasm in order to identify what you need to do or that would be helpful with regard to getting there, be it through the RECs or be it through your vendor. Where are you seeking that expertise to help you move beyond a certified systems installation to achieve meaningful use?

Careen Whitley – Hill Physicians Medical Group – EMR Clinical Liaison
I'll start off. I would say that NextGen in particular has been very helpful. They've had a number of Webinars and they continue to provide us with resources, white papers, etc. So I think that's been very helpful and it makes me feel a little bit less anxious about the process. I personally reached out to my Regional Extension Center. I've applied, filled out multiple documents, online forms, and I got one e-mail probably about five weeks ago saying we'd like to talk to you, what's a good time, and I've never heard back from them. So initially, they were out trying to recruit practices. I haven't seen anything happen after that. So if there are other resources that we can tap into, I'd love to know about them and talk with other groups in our area, and try and reach out to other NextGen clients that we feel we can partner with and share information, but we're sort of at a loss right now.

Lyle Berkowitz – NMPG – Medical Director, Clinical Information Systems
As a hospital and group, we rely very much on our hospital organization to set up a number of workgroups to help us with this. I assume they rely on the vendor. The REC is not interested in us. We are a combination of we're too far advanced. They want to help people get started, and I guess we're not poor enough or something and they're focused on smaller groups that don't have as much money, which I guess, but right now if not for our hospital, it would be hard-pressed for us to imagine doing the work and effort that it takes. I have a lot of sympathy for smaller groups who don't have a lot of resources like you're asking about to help them.

Scott Hammer – Southern Delaware Medical Group – Co-Founder
We must be poor enough then because we've had good support from the REC actually.

Ken Tarkoff – RelayHealth – VP & General Manager
Moving over to Cris.

Cris Ross – LabHub – CIO
Thanks very much for your testimony. First, a simple question, when you talk with your colleagues in your community would you rank yourself in the top quartile, second quartile, third and fourth, something like that? Don't be too proud. Don't be too modest. I would just be curious of your honest assessment of where you think you are relative to your colleagues in the communities where you practice.

Scott Hammer – Southern Delaware Medical Group – Co-Founder
With actual usage of the systems or moving towards meaningful use?

Cris Ross – LabHub – CIO
Let's talk about with respect to meaningful use. Thanks for the clarification.

Lyle Berkowitz – NMPG – Medical Director, Clinical Information Systems

To clarify, you're talking about others who are using EMRs or everybody in general?

Cris Ross – LabHub – CIO
Let's say everybody in your community.

Lyle Berkowitz – NMPG – Medical Director, Clinical Information Systems
First of all, we're probably in the top quartile just because we're using an EMR. If you want to break it down into those who have an EMR. I think everyone's just scrambling right now, again, because we have the hospitals doing these nice matrices, etc., I feel like we've got a plan and talking to other folks I think their heads are spinning right now. When you get to a point where it's so hard and complicated and they stop believing that it's even worthwhile and they're not going to even try and worry about that. So I feel good about where we are, but we've got a pretty robust infrastructure in place.

Scott Hammer – Southern Delaware Medical Group – Co-Founder
I would echo that. I think that we're probably in the top quartile, just by virtue of the fact that we're using an EMR. On the other hand, I think I can name two practices that are even talking about meaningful use, ours and one other that I'm aware of, and that's among the people that are actually using EHRs.

Robert Murry – Hunterdon Medical Center – Medical Director, Informatics
We're certainly in the top quartile as well.

Careen Whitley – Hill Physicians Medical Group – EMR Clinical Liaison
I'll ditto that.

Cris Ross – LabHub – CIO
If you all are struggling, not struggling but you've been candid about your challenges it's sort of daunting to think about the second people .... I want to ask one other quick question with respect to, and it was an issue I wanted to raise on the last panel that was really aimed at practices like yours. We had a lot of conversation about Health Information Exchange and ... focused a lot of attention on them, but I'm sort of curious about each of your experiences of thinking about getting your practice connected to a Health Information Exchange. Is that even on your radar? Do you have strategies and ideas or concerns about that?

Careen Whitley – Hill Physicians Medical Group – EMR Clinical Liaison
That has been on our radar. We already use RelayHealth for some Health Information Exchange colleague to colleague, with patients, etc., and that was our initial project even before going to EHR is to connect our practices using RelayHealth. So we have been doing that for a number of years and we'll continue to work with them and develop newer strategies and integrate that more seamlessly into our EHR. We have worked with hospitals where they will work with us connecting to them and exchanging information. We have some very good projects going on in Sacramento and San Joaquin, but there are other areas where the hospital really does not want to work with us. They have their own physician organization, and even though we admit to those hospitals we're not on their list of priorities. So it varies.

Robert Murry – Hunterdon Medical Center – Medical Director, Informatics
For us, we're currently using NextGen HIE or a data exchange within our enterprise, and obviously being developed by the same vendor as our EHR and that's working well. Our next steps certainly on the horizon are to connect that to our local hospital which uses a different system as well as other local EHR providers using their EHRs. Then finally, we're actually in Linda Reed's, one of the four New Jersey HIEs and so we're making plans for that as well. But I can't emphasize enough a big hindrance to this is the lack of standards and a lack of functionality, because this is very complex. It's one thing to have a snapshot of the entire patient's history. It's another thing entirely to have constant information exchange between you and the HIE. With the HIE being updated with only new or changed information based on each encounter, admission, etc., and then having the ability to selectively download that information into your EHR, to review what is in fact new and what is in fact accurate and then decide to incorporate it. So

it's not only the standards but also the functionality we've been using, the existing standards that's making it clinically untenable to really move forward in the HIEs at this point.

Lyle Berkowitz – NMPG – Medical Director, Clinical Information Systems M
I'd like to add, we have very little interest in a regional HIE right now. We're still trying to get a local HIE in our enterprise. We have a hospital. We have multiple physician groups, four or five different EMRs floating around, we're trying to start unifying them. What's mentioned is there's data sharing, there's filtering, and there' s also workflow, so right now I'm struggling with getting my ER, emergency room, who uses the same database, the same EMR we use, just to look at the data I have in there, much less thinking that they're going to go out and look at something from another hospital. Just that conceptual idea and that workflow itself isn't hard enough. We spent years trying to make that happen, so right now I'm a big fan of LHIEs, Local Health Information Exchanges, as they call them, which is just getting everyone to share the data and the owned EMR that we use, as well as amongst the EMRs we use on campus that's exceedingly difficult. We don't even have an MPI on campus because of technical and political reasons. We're more than happy to share reasonably but it's so far off our radar right now and so hard to do that it's not something that's going to happen quickly.

Scott Hammer – Southern Delaware Medical Group – Co-Founder
You'll have to forgive me because I do get some of the terminology confused sometimes admittedly, but the HIE I believe that we're all using in Delaware refers to the Delaware Health Information Network, and I think it's something that we're doing well. However, there are some problems with it too. Some of them have been mentioned. It's had very widespread hospital support so the information is going in it very well from the big players, LabCorp and some of the other private corporations as well. It's flowing pretty well through our system too. There are problems sometimes with the unique patient identifiers, making sure it goes anywhere, for one, but to the right chart for two, and there's problems with duplication of all that data so that we get a fax copy of the x-ray that comes in through the fax press and we see that once, sometimes twice directly from the hospital. We get it also through the DIN, once, twice, so as has been mentioned you're seeing that same thing two, three, four times and it's a lot of salt water really.

But the other issue is building these bridges, building the interfaces and some of the smaller players have been unable to get their information to the ... because of a lack of being to do an interface. I really don't know how that's going to play. We're not doing progress notes and H&Ps and things through it yet, it may have already happened. It's supposed to happen at any time now. But I don't know how a small group like my own would get our information to the DIN to then be able to disseminate it out even though we're ahead of the curve, so there are still some questions to be answered with that.

Ken Tarkoff – RelayHealth – VP & General Manager
Liz?

Elizabeth Johnson – Tenet Healthcare – VP Applied Clinical Informatics
Thank you for your testimonies. We realize you guys are super busy and here you are helping us figure this out, so thank you for taking that time. Hopefully, we'll be able to do it better because of what we're learning with you today. Robert, you specifically, and then others, alluded to, you talked about specific core measures that you were going to have to change or process to be able to collect. What I'm trying to determine is, is it because the standard wasn't clear? Is it because your vendor doesn't give you a place to document that makes sense? Or is it the process? Can you help us with that?

Robert Murry – Hunterdon Medical Center – Medical Director, Informatics
Sure. In my testimony, I mean, all three of those are true, but the ones I mentioned in my testimony are the ones that we need to just change our workflow in order to meet the measure. There are also cases where it is only new functionalities that a vendor has in order to be able to put the data in the right place, and ultimately of course that's what's forcing these painful upgrades, because without those upgrades they're just simply not reportable or attainable. But the measures that I mentioned were just those that

are workflow changes, because I thought the committee might be interested to see some of that information.

Elizabeth Johnson – Tenet Healthcare – VP Applied Clinical Informatics
So there are examples—though not to ... get into this today, but—there are examples of where a standard isn't clear, examples of where the software doesn't capture the standard and the process change.

Robert Murry – Hunterdon Medical Center – Medical Director, Informatics
Correct. The software upgrade of course obviously it's a ... product and so it currently has that functionality, but developing how to use that functionality in a workflow is a challenge. Prior to that upgrade the functionality ... in the standard did not exist.

Elizabeth Johnson – Tenet Healthcare – VP Applied Clinical Informatics
Is that true for all of you?

Careen Whitley – Hill Physicians Medical Group – EMR Clinical Liaison
Yes. I think another example is transmitting records or looking at records at transition of care, or documenting that you've given a patient a copy of their records for a visit. You have to go to a different template, and we don't actually have it yet, but I've seen it. It's a separate template that I have to document the patient requested or some other entity requested records. I have to put in the date that it was requested. I have to put in the date that it was satisfied, which is totally separate from the actual delivery of those records.

Scott Hammer – Southern Delaware Medical Group – Co-Founder
In a lot of cases, it's proving it too. I print out office notes for people all the time at their request, or you want your medication list? Sure, no problem. Do you want your labs? Sure, it will be up front for you. Click. But the software doesn't necessarily show that I did that at this point.

Elizabeth Johnson – Tenet Healthcare – VP Applied Clinical Informatics
It sounds like you understand what you need to do. You have the capability but you've got to get a process and a documentation piece in place.

Scott Hammer – Southern Delaware Medical Group – Co-Founder
Right, and we're waiting in the next version of our software and upgrade that we look forward to.

Lyle Berkowitz – NMPG – Medical Director, Clinical Information Systems
Let me just … just emphasize the three parts to it. One is sometimes the requirements are a little bit confusing. For example, we're not sure whether a provider or their intermediary can answer something. Second is that the vendor creates a functionality that's not just very usable or out of our workflow ... they have to create a smoking—it's a form but it's not something we've used. Third is the busy work that's been mentioned. All of a sudden, now we have to have our staff, our doctors attest whether someone asked for something and whether or not we gave it to them. That's just extra work that doesn't add anything to our clinical ability.

Ken Tarkoff – RelayHealth – VP & General Manager
Judy?

Judy Murphy – Aurora Health Care – Vice President of Applications
Speaking along that same theme actually I was intrigued by Dr. Murry's comment of unintended consequences of trying to meet meaningful use, which was derailing your EMR journey. Which led me to believe you had a road map that you were trying to follow and then you got digressed out to this little detour of meaningful use, which would also lead me to believe then that there were some things that you thought were important in your EMR implementation that were not represented in meaningful use. So I'm just curious if that logic makes sense, what I just went through, and which kinds of things might you be

interested in that you feel got derailed as a result of trying to meet meaningful use. I got the part, by the way, about the upgrades being close encounters of the worst kind and really taking a lot of energy. So other than that I'm looking for other kinds of examples.

Robert Murry – Hunterdon Medical Center – Medical Director, Informatics
Certainly, the logic is correct, and I think one of the reasons that we, and the others here on the panel are early adopters is because we have a vision of using EHRs in a clinically meaningful way so it's a bonus when meaningful use comes in and supports that vision. It's an unintended consequence when it doesn't. It would probably take more thought to figure out which measures collided with us and where is it missing, and some of the things that apply in our situation are not going to apply elsewhere, but I would have loved for the measures to certainly encourage information exchange in a very specified way. We've all just discussed how difficult it is to get these HIEs off and running. The only way that functionality is going to happen is if it's built into the EHR, it's easy to use, and people can begin to wrap their mind around the workflow of well, I can easily check the patient's entire medical record online and incorporate that into an intake in an ER or in an office. So that would be one.

The other would be to make sure that the EHRs—either during the visit or afterwards in some kind of computerized or reviewed abstraction process—are really storing the data in a structured manner, again to ultimately facilitate exchange. There are certified EHRs where you can document the results of the x-ray and the lab as notes within your plan, pre-text notes. That makes sense clinically, as it creates a legible record, but I can't share discreetly the record of the results of the x-ray out of that EHR unless I force the user of that EHR to put it in the place that's discreet. So those types of things are missing in my mind.

Judy Murphy – Aurora Health Care – Vice President of Applications
Any other thoughts by any of the other panelists?

Lyle Berkowitz – NMPG – Medical Director, Clinical Information Systems
I'll throw out that the idea around some of the care coordination and quality movement that we do—things like registries and tracking, etc.—aren't fully incorporated in. And because we feel that it's not the strongest point with our EMR vendor we're actually going to have to use a separate data warehouse to do that, which brings up more work, gives us more flexibility, but we'll have to get that certified. It does become distracting a bit. I do appreciate that we're starting to be pushed towards doing some of these reports but we have to balance very carefully getting those outcomes with how much CMS and ONC is making us do it a specific way.

Ken Tarkoff – RelayHealth – VP & General Manager
Larry?

Larry Wolf – Kindred Healthcare – Senior Consulting Architect
Thanks again for your time and the great work you guys have already done. One of the themes I keep hearing is that big MU meaningful use is getting in the way of little MU meaningful use. One of the areas that you've touched on a few times, and maybe you can talk a little bit more, is the area of care coordination. This is a big concept and sometimes that gets turned into the check box of HIE participation or Information Exchange, but there's a big gap between that. So if you could talk a little bit about the things you feel are actually important to making care coordination happen and how you see your use of electronic health records as setting you up to do that better or where it's creating barriers to doing that well. It could be things that are like not even in the scope of the EHR, say like the biggest barrier is getting on the specialists' calendars so that my patient gets an appointment and my getting a report back when they've seen them. So I'd like you to answer that broadly.

Lyle Berkowitz – NMPG – Medical Director, Clinical Information Systems
I'll start since I keep bringing it up. When we talk about care coordination, and it can be in a couple of different things, we're talking about how to help the physician and the patient with the process of getting

something done, usually around a specific diagnosis or some type of theme. I'll give you an example, we have created a series of pathways, sort of checklists, process based checklists, where if a patient is diagnosed with hematuria, blood in the urine. They are assigned to a pathway by the doctor and then we have a care coordinator. That's simply a message that we send in our EMR to the care coordination team, who then has to help the patient set up a CAT scan, help the patient get a urology visit in the right sequence, and then does a follow up review about four to six weeks later. The results have been great. Improved quality, efficiency, access, decreased costs because of that simple measure and we've played that out in multiple other ways where we get the right test and the right sequencing.

It's relatively simple. A lot of it right now is very much a small template and messaging and there's a lot of work by the care coordinators to make all this happen. I call it the magic of all these busy folks working. I can see how electronic medical records could start incorporating those kinds of concepts of being able to have these ambulatory order sets that involve sequencing, that involve checking on the patient. We don't see any of that within the meaningful use requirements. It's a lot of work, it's hard, but those are things that have some clear and definite impact for us and I really like and just wanted to highlight to the group. We've been successful with about 10 of those already, we're going to expand to about 20 more throughout our organization, and again I'd rather have a poor EMR that is consistent that I can figure out how to use, similar to I'd rather have a bad standard than no standard at all. But the more that we can think about how do we facilitate that and then how do we move in to do these registries and etc. is I think going to be an important part of further MU requirements and something that is not particularly reflected in the initial requirements.

Ken Tarkoff – RelayHealth – VP & General Manager
Anything else on that question?

Robert Murry – Hunterdon Medical Center – Medical Director, Informatics
I can jump in here. I think that care coordination and chronic disease management, I'm a practicing family physician, and this is an area where EHRs are just really falling short of their potential. There's all this information that's at least in your own system hopefully eventually going to be able to be shared with other systems, but bringing it forward in a usable way at the point of care for all of the people involved in the chronic disease care for that patient is just not happening. It gets back to my point about needing practicing clinicians to help with specification and EHR development, I will say that EHRs make everything legible and we actually accomplish care coordination now by giving other entities in our organization view access to our EHR because we don't yet have the capability to exchange that information. But there's a lot of nuances here. Even though there are some data exchange protocols, as we mentioned, there's subtle types of data that are essential to taking care of chronic patients that's not going to be easily codified. So the patient is only partially literate, or you have to tell the patient's spouse about any medication changes because they're the ones that actually set up the medication. Do you have a common place to share that type of essential information? It's going to be needed if I'm expected to eventually use my specialist colleagues across the way, his notes and information incorporated into my chronic care of that patient.

I think it's also important to force the EHR vendors to come up with some kind of care coordination or chronic disease specific templates for the big ten chronic diseases but also give built in functionality that allows providers to customize those flows. Because sometimes you just agree with a particular expert committee's recommendations on diabetes or other times it just is not working for your office because the nurse does the intake but the provider writes the orders, etc. If the EHR isn't flexible enough to allow multiple different people to be involved in the care of that patient, the EHR can actually hinder care where it really ought to be helping it.

Ken Tarkoff – RelayHealth – VP & General Manager
Robert?

Robert Anthony – CMS – Health Insurance Specialist

First of all, thanks to all of you, not only for your testimony but for being the early adopters. Obviously, the success of what we do is certainly dependent upon having folks like you being very interested very early on in this process. Dr. Berkowitz, you probably want to grab me afterwards, because some people seem to have me on speed dial. There are other folks like you who seem to have trouble getting to me, and I'm the person that you probably want to talk to.

A number of you have talked about workflow in general and you've added to it with some of the questions that you've talked about here. I'm wondering if you could break down for me, this is a multi-part question, I'm trying to get a sense of how much of the added workflow because of the EHR is permanent, how much of that will essentially adjust to a normal level over time? How much of that is due to incorporating those meaningful use objectives into your workflow in general versus maybe the poor functionality of an EHR that's really not set up to handle that in the best manner. I'm just trying to get a sense of how all of those pieces fall out. Then I think ultimately, how have vendors maybe reacted to some of this feedback as well when you're telling them that certain aspects of it aren't convenient to the workflow that you've tried to set up?

Careen Whitley – Hill Physicians Medical Group – EMR Clinical Liaison
To start off with, some of the workflow changes are around using EHR. It's not like the paper world. And all of our providers, and I think people have mentioned it before, they really, really struggle. It is very, very difficult. It's a permanent change. We all went into this thinking that we're going to be able to work less and be more efficient and get home early, and I get home early but after dinner I go back to work in my own home, as opposed to having to be in the office. So I think for providers on not just our system but people who are on other systems where I've talked to people on other products, they really find that their workflow has increased.

There are some efficiencies, there's less redundancy, there are no lost charts, etc., which make some of the work easier, access to patients' data wherever you are really does help in a number of ways, but it doesn't create less work for the providers. We've all worked at using our staff as extenders and giving more duties to them as far as documentation, maybe taking a history that we then review with the patient, etc. Some of that may clash with some of the MU guidelines, as people have already said. So a lot of the changes are permanent. As far as chronic diseases, I think a number of us have told our vendors that the tools we have are not adequate. They hear us. I don't think they exactly understand it sometimes or that they're able to respond quickly to our needs and make a change to something that is more useful.

Then some of the changes that have been made regarding meaningful use, we can only tell you what we think because we haven't really seen it yet. We're just getting it into our test environment just this last week, so I can only tell you what I've seen at meetings and not what I've actually had a chance to play with and touch and use myself and certainly not use in an office setting. When you play with it in a lab, it's very different than when the patient's sitting in front of you. It's a totally different ballgame.

Robert Murry – Hunterdon Medical Center – Medical Director, Informatics
I think in our experience with both private practices that are part of our enterprise as well as hospital ... practices multiple specialties, I think in general even when the practice is stable after a couple of years of EHR use it takes the providers a little longer per visit to document. But I do think you can recover that time in other more efficient office workflows, but you have to really take it upon yourself, or the practice has to take it upon themselves, to really rethink the office workflow. Now that anybody can see the chart and they can all do it simultaneously, how can the doc get some time back by redesigning the way things are done? So on the whole perhaps a little longer days once things are stable.

For our practices the initial disruption, they recover from that in about a month and I think they're pretty comfortable by the end of six months, again, more so if they've really taken ownership of that office change management, that workflow redesign. I do think that the way that the meaningful use measures were laid out is very good, because it's giving you goals and it's forcing each of the practices to figure out

their own solutions to use this product to achieve this goal. That forces them, again, to take ownership of the product and think about new ways to use it, new ways to innovate to allow that to occur.

With regard to the vendor reaction, I have two comments there. In addition to what's already been said, remember that there's a big time lag too. We can give our vendor the best suggestion in the world, even one that's going to improve sales not just functionality in the ..., but it's going to take them six to nine months to implement that and it's going to take us six to nine months to implement that. So there's a big lag behind that.

The final point I'd like to make, though, is that there's no perfect EHR, I think all of us would agree with that. One way to reward the kind of innovation that gets providers doing their care better, faster and more efficiently, in order to reward that you need to make it easier for people to switch EHRs. I love our vendor, but you need to make it where if you're sick and tired of your vendor you're not married to them. You can take all of your data because all of it's in a standard and you can go down the street and say, you know, I really like the way that they do chronic care management better and I want to be able to switch. So I would challenge the Policy Committee to make that more possible and let the marketplace decide which vendors are going to live and which ones are going to provide the functionality that everybody's clamoring for to take better care of their patients.

Lyle Berkowitz – NMPG – Medical Director, Clinical Information Systems

Let me throw out a statement here. I don't think, and I know, we don't have a shortage of physicians, and particularly primary care physicians, in this country, as much as we have a shortage of using them efficiently. The current EMR philosophy unfortunately makes that worse. Let me give you a couple of examples. First of all, for our specialists, when you have specialists who basically can go in, figure something out in a minute and go out and take care of someone, they're high volume specialists. These are dermatologists, ophthalmologists, or seeing return OB patients, but when you throw in about a minute of trying to get on to the computer, find the patient, open the chart, that's basically their visit. You've now cut their efficiency by 50%, no matter what your EMR is, just by dint of the fact that they have to get on to that EMR. Primary care physicians, and recent studies have shown this, that the higher the volume in the practice the more inefficient you get, so the workflow question that comes to matter is what type of physician and what your practice is set up to do.

A primary care physician has a little more time. We have ten to fifteen minutes with patients, so that extra minute of getting in we can do a little glad talking with the patient and it works out okay, maybe I can review a patient's summary on paper, which we do at our practice. But in the end I agree with what's been said, that currently we overall spend more time, do a little bit more work with the patient with the EMR. I do think we do better for the patient by doing that, it can force us to do some extra things, so we actually do more for the patient and maybe it takes a little longer. So again it's not apples to oranges, because we've changed our workflow.

But looking forward, we all know that this is not sustainable. We don't have in our current system enough doctors to see everybody, in our current system. So the issue then becomes again do we start thinking about EMRs, and right now most of what we think about with EMRs is how do we get the doctor to be the best data clerk? How do we modify our EMR a little more so that it makes it a little faster for the doctor to be a data clerk? I think we've got to get out of that thinking and we have to think how do we use EMR to improve practicing medicine? Whether or not it's myself or an intermediary working on the computer, the end outcome should be those data reports, the outcome should be the health of our patients, it shouldn't be dictating that a physician has to be the one typing the keys. I do worry that we spend a little too much time thinking about how do we make it a little faster for the physician to type those keys, instead of bigger picture, how do we make it more efficient and higher quality in general no matter what we want to do. That's where you start getting innovation, rather than innovating just on specific little key touches.

Scott Hammer – Southern Delaware Medical Group – Co-Founder

As a follow up to that, I think it remains to be seen how many of them are permanent and how many are temporary when you take into account the core measures and the meaningful use requirements. And I'll give you a concrete example, the Medicare recipient with coronary artery disease that continues to smoke comes in for an office visit. They've already been checked in by the nurse, they've had their vital signs recorded, and we had our nurses do an initial review of systems and chief complaint. I walk in as the data collector and I click three times for demographic collection, I click two to three, maybe four times, depending if they continue to smoke, etc., etc. I click twice whether they're on aspirin or Plavix. I click once or twice if they have asthma because of the smoking and if it's been measured or not recently, so how many is that, and then I'm on to starting the visit, so just the data collection at the beginning is eating up a significant amount of that time.

How many of those are permanent? I don't know. I think it depends on what we're measuring at the time. Hopefully once they get the demographic information in there that won't change, but the rest of them might. Every visit might be different. Also, I think it depends on how the meaningful use requirements translate into practice. As another example, the patient portal requirement is going to create another way for patients to request a prescription, which I think is fine, great. But we need to figure out a way to reduce that redundancy also because now I've got the patient calling in, leaving a message asking the nurse to send me a message, I've got the pharmacy sending me directly an electronic prescription request, and now I've got the patient portal, and who knows where that's going to go. Does it go to a nurse? Does it go straight to me? So I've had three or four requests for this same prescription, maybe on different days, and that also creates more time to look and see whether it was done or not when I did it three days ago. I don't know what the answer to that is, but I just wanted to give you a couple of real life examples.

Ken Tarkoff – RelayHealth – VP & General Manager
Marc?

Marc Probst – Intermountain Healthcare – CIO
I echo the thanks for your work. So you're all practicing physicians and we know there's a group of people holed away somewhere going through meaningful use stages two and three that they'll be showing to us soon. What would be your most important counsel to that group, or even the Policy Committee, as we go through and look at meaningful use stages two and three? Is it time? Is it specific functions? Is it standards? What would be your most important counsel to us as we look at the next stages?

Careen Whitley – Hill Physicians Medical Group – EMR Clinical Liaison
I think the first issue is definitely time. We're filling the time crunch right now, and that's what's closest to us, so that's the first thing that we would respond on. I don't think I have enough understanding of, I mean, I know what the broad ideas are for stages two and three, but how are you going to accomplish that and how many more hoops are we going to have to jump through? I'm confused. I am a little worried because as we begin to communicate and share data and do population management we really don't have those tools available to us at all now.

Lyle Berkowitz – NMPG – Medical Director, Clinical Information Systems
Not to be too didactic, we don't say you have to do 100% of these otherwise you're not doing meaningful use. That's not fair. It's not appropriate. I like the idea—right now, you have some of the optional measures, and continuing that philosophy makes sense. Different groups are set up differently and different EMRs are set up differently. Different workflows are set up differently. Respect that and it's not fair to say someone's maybe working so hard but because they couldn't do one measure that someone has decided that this has to be done. That's not right. Focus more on the outcomes not on the specifics. I talked before about the means versus the end, well, focus on the ends. Don't get too caught up in the specifics. This is where I wouldn't ... to overly standardize the means on this. I do like the idea of standardizing things like MPI and various standards are important, but when you say we want to have a good health outcome focused more on that, let us be a little bit more innovative, especially. Let's face it,

it's an immature industry, the software is still being developed and evolving, and smart people and ... people are figuring out how to bend the rules a little to get to the better outcomes. Let us have that flexibility.

Robert Murry – Hunterdon Medical Center – Medical Director, Informatics
I think there will be three of course conflicting goals. Number one is time, because it's one thing to specify that the vendors have certain functionality, but if you really want to give them the opportunity to incorporate that functionality into a usable way they need more time. There's no question that stage two and stage three are probably going to force another set of upgrades and so let's make those upgrades count. The committee needs to prioritize what functionalities of the EHRs and those HIEs that are most important to patient care, what's the biggest bang for your buck. Force that level of not just functionality but usability in the EHRs and also incorporate some real world testing in the certification process, not again that you have some such feature that the radio's in the trunk, but that the radio's actually usable and helpful.

Scott Hammer – Southern Delaware Medical Group – Co-Founder
I would say a few things are very important: clarity, simplicity, reasonable flexibility, and to be mindful of costs, both time and actual dollars required.

Ken Tarkoff – RelayHealth – VP & General Manager
We'll do one last question. Judy?

Judy Murphy – Aurora Health Care – Vice President of Applications
I know we're running tight on time, but there's an important group that we haven't actually talked about, and that's the patient, the integration of the patient into the whole HIE and/or your systems, specifically related to the use of personal health records. So I'm interested in your experiences with doing that, whether you already are doing it, thinking about doing it, or know you need to kind of thing.

Careen Whitley – Hill Physicians Medical Group – EMR Clinical Liaison
We have a personal health record that we use that patients have access to through RelayHealth. How well they use it, it varies from patient to patient. We do need to develop a system that information can flow back and forth. Right now it's stagnant, it's basically what the patient has put there, or records that we've been able to release such as lab data, etc. It's definitely a work in progress.

Judy Murphy – Aurora Health Care – Vice President of Applications
So you don't active use it in your workflow when you see a patient in the office?

Careen Whitley – Hill Physicians Medical Group – EMR Clinical Liaison
The personal health record?

Judy Murphy – Aurora Health Care – Vice President of Applications
Correct.

Careen Whitley – Hill Physicians Medical Group – EMR Clinical Liaison
No. We do, when we're giving referrals, give them basically, what is similar to a CCD and a written document. When they look at that, I find that they come back with all kinds of interactions and it's really been an interesting process. Some of them want to see everything. Some of them are very concerned about who has access to that information and don't want it available. So this is a lot of education that needs to go on on the level of the patient.

Robert Murry – Hunterdon Medical Center – Medical Director, Informatics
We don't currently have a PHR, but I'd love to. In fact, we're bringing a patient portal up in 2011 and that's one of the components of it. It's also specific to our enterprise vendor, so we're hoping that it goes smoothly. I think that it's important to realize that what the patient wants to use their own health record

for is very different than what the doctor needs to use that information for to take care of them. So you have to be a little careful when you're asking doctors to translate their medical way of thinking into a way that the patient's not going to then turn around and ask them a gazillion questions. That's missing the point of what the doctor's trying to recommend. So if you just willy-nilly say export the CCD from the patient visit into the PHR, that's not going to be as useful. I do think that if you really want patients to embrace PHRs and constantly check their own Websites or whatever, you're going to need to reimburse physicians for reviewing that information with them, which is a different requirement than just a routine office visit. Primary care is already stressed like crazy, and if there's a sideline or a hidden agenda that now there's another duty that your primary care physician has to do, which is to help you understand your own PHR, but there's no reimbursement for that, that's another burden.

Lyle Berkowitz – NMPG – Medical Director, Clinical Information Systems

It depends on what your definition is. Research and experience has shown that patients really don't have a lot of ongoing interest or activity in maintaining their own data. However, we found that they have a ton of interest in actionability, so we set up our patient portal. We have over 50,000 patients signed up, 12,000 messages a month. It is by far the favorite thing our patients have used with our practice. They really don't like having to call. They love being able to message, it comes to us, we do refills, we answer questions, we do Web visits, we do follow up, we send a summary of our lab reports that way, and we are going to move towards sharing some more of our EMR with them. I don't think we're going to easily get into the idea of looking at everything that they update. That's going to be a tougher sell. But in general again that hasn't been historically something patients have shown a lot of interest in.

Healthcare is very sporadic and it's unlike watching a financial system, etc. Unless you're going through an acute crisis people really don't seem to have a lot of interest ongoing. When they are in an acute crisis their number one issue is communication with their physician. We believe strongly in that. It's worked out very well for us. And I do think that that is a great requirement to have, although it's not easy just to turn on. A lot of people who have turned it on still have had trouble getting the patients to use it, but we've built up over the past four or five years a sizable base doing it and we enjoyed it very much.

Scott Hammer – Southern Delaware Medical Group – Co-Founder

As far as I know, there are two patient portal vendors that operate well with our EHR vendor. We just had a talk from one of them last week and in looking and setting that up I'm admittedly skeptical that the discrete data that the patient would put in on their side would make it to where it needs to go in the electronic health record. I've yet to see the two systems working together. That was one of the requests that I made of them. One of the questions that I asked of them is that if we're going to open up this portal, we're going to give access to the personal health record to the patient and let them adjust it basically or put information in there, who's managing it? Who's checking its accuracy? Because it's more work, it's more time.

Another question that I've asked with access to portals is, we charge for office visits, we charge for face-to-face communication, I don't think it's been well thought out if there's going to be any reimbursement for that type of interaction. If you send an e-mail, if you send a request via the portal, if you update your personal health record, it's all cost in my mind. Sure, maybe you can argue that well, that was a phone call that didn't have to be made to the office and you've not had to pay for that time spent on the phone or what have you, but it's all cost as far as I see it right now.

Judy Murphy – Aurora Health Care – Vice President of Applications

Thank you. I think despite all of the issues that you've brought up, when we talk about revolutionizing healthcare and having patients take accountability for their own health, this is one giant step in that direction and I think we'd all agree to that and it's just how to get past all the barriers and issues to be able to do that.

Ken Tarkoff – RelayHealth – VP & General Manager

Thanks, Judy. I want to thank all the members of the panel. This was a great session. It was very insightful. I think it's great to hear from folks that are early adopters of EHRs and the challenges and the opportunities. So I again want to thank everyone. That will close out this session. We're on break now until 12:45. We're going to start promptly at 12:45. I want to thank folks again.

(Lunch Break)

Judy Sparrow – Office of the National Coordinator – Executive Director
I think we're ready to resume the hearing, if you'd like to take your seats, please.

Joe Heyman – Ingenix – Chair, National Physician Advisory Board
I'm Joe Heyman. I'm a practicing OB/Gyn from a little town in Massachusetts on the New Hampshire border near the coast. This is our second panel of "Early Adopters of Meaningful Use Seeking Attestation." This is another medical practice group and we're going to be hearing from, and if I mispronounce your name just correct me, Scott Monteith from Michigan; Willa Drummond from Florida; Richard Sadja from Glendale, California; Harm Scherpbier from Pennsylvania; and then Rob Anthony will be the reactor. Rob is sitting over here on my right. Why don't we start with Scott? We're going to do just five minutes apiece and we'll be pretty strict about that because we want to have an opportunity to ask you questions afterwards. Thank you very, very much for joining us. I know what it means to give up a day of practice. Go ahead, Scott.

Scott Monteith – Northern Lakes CMH – Psychiatrist
My name is Scott Monteith, a Board Certified Psychiatrist and Fellow of the APA from Michigan. I work in private practice and with Community Mental Health, CMH. I also teach at MSU's medical school. My 21-year interest in HIT includes being a CCHIT juror appointed by our governor to three terms on the Controlled Substances Advisory Commission, which is a role overseeing Michigan's automated prescription system, a member of the Business Operations Workgroup for Michigan's Health Information Network working with malpractice insurance companies to manage growing risks associated with EHRs and more. I'm pro-HIT. For all intents and purposes, I haven't handwritten a prescription since 1999. That said, and with all due respect, to the capable people who have worked hard to try to improve healthcare through HIT, here's my frank message. ONC's strategy has put the cart before the horse. HIT is not ready for widespread implementation. The problem isn't Luddite doctors not adopting. The problem is that HIT isn't ready, especially if we want safe and efficacious bells and whistles, like CDS interoperability, etc.

To describe ONC's handling of HIT promotion let me use an analogy. It's as if policy makers said let's promote a cure for cancer. By curing cancer we can save money and improve the quality of people's lives. Like our collective fantasy for the benefits of widespread HIT use, which I share, who can argue with the dream of curing cancer or the good intentions behind it. The problem is that finding the cure for cancer isn't as simple as declaring a cure and then merely getting resistant doctors to start using it. Continuing the analogy, our dollars are incenting doctors to use Laetrile, the supposed cancer cure that was not evidence-based and didn't work. ONC has promoted HIT as if there is clear evidence-based products and processes supporting widespread HIT implementation. But what's clear is that we are experimenting with lives, privacy, and careers.

As a clinician, I'm here to report that certified EHRs are not necessarily producing better documentation or improved care. Yes, EHR generated documentation is usually more legible but it's often legible gibberish and there's a lot of it, including meaningless data burying relevant information. Example, a colleague requested records for his mother's nearly two week hospital stay. This particular hospital is an early adopter of EHRs. He received almost 2,900 pages. Finding relevant data in the midst of 2,900 pages can be like finding a needle in a haystack. Here's another example of EHRs degrading documentation. In our CMH administration inserted language into the doctor's treatment plans. The problem is that the language is patently false and untrue. Unfortunately, administration controls the EHR and physicians cannot change the untrue language. Ghost writing clinical notes, often incorrectly, is

increasingly common, whether it's through a fixed field, no or limited free text, inserted language that cannot be changed, multi authored documents or other means. I've documented scores of error types with our certified EHR and literally hundreds of EHR generated errors, including consistently incorrect diagnoses, ambiguous eRxs, etc.

As a CCHIT juror, I've seen an inadequate process. Don't get me wrong, the problem is not CCHIT. The problem stems from MU. EHRs are being certified even though they take 20 minutes to do a simple task that should take about 20 seconds to do in the field. Realize, certification is an open book test. How can so many do so poorly during these processes? For example, our EHR is certified. Even though it cannot generate eRxs from within the EHR as required by MU to CCHIT's credit, our EHR vendor did not pass certification. Sadly, our vendor went to another certification body and now they're certified. MU does not address many important issues. Usability has received little more than lip service. What about safety problems and reporting safety problems? What about computer generated alerts, almost all of which are known to be ignored or overridden? The concept of unintended consequences comes to mind.

All of that said, the problem really isn't MU and its gross shortcomings. It is ONC trying to do the impossible. ONC is trying to artificially force a cure for cancer, basically trying to promote one into being when in fact we need to let one evolve through an evidence-based disciplined process of scientific discovery and the marketplace. Thank you for the opportunity to be a part of this process.

Joe Heyman – Ingenix – Chair, National Physician Advisory Board
Dr. Drummond?

Willa Drummond – University of Florida – Professor of Pediatrics, Physiology
I'm Dr. Willa Drummond, a Neonatologist, a Pediatric Cardiologist, a Medical Informaticist, and a developer of real-time systems in the technology transfer area. I'm a little mystified about why I'm here because the exclusions in the meaningful use exclude all inpatient physicians and all children under the age of two, which means that as a completely inpatient physician, neonatologist, actually I do night call to allow me to have daytime, I actually am not eligible for personally any reimbursement or incentives. However, my hospital is in the process of a crash install of a commercial system into the entire hospital, including Neonatal Intensive Care Unit. We're supposed to go-live in March and we have yet to decide what the incarnation of the hardware is going to be into a critical care unit that's 20 beds that usually has about 30 babies in it. So that's a challenge and a barrier.

But the tech transfer development that I'm doing is actually neonatal critical care and I have been developing a real-time automated data management and crunching system that literally grabs and aggregates pretty much all critical care. The barriers and challenges of doing that are the complexity of the real-time situation in hospitals, especially ICUs, the MD disempowerment in hospitals, and I actually am an academic faculty, of their physicians. I started in 1987 with a vision to do this and along the way, we ran into lots of problems, including the funding, or lack thereof, lack of grant support, and that is the only thing I submitted, a timeline. The PI was not qualified. Six times over, I heard the message.

What did work is that the National Library of Medicine put together the NLM training program, for which I was fortunately accepted at the University of Utah for a two year Master's program and an emergent experience that was one of the best experiences of my entire life. The time that I was away from the UF, the prototype system we had developed during the '90s was basically put to bed. By the time I got back—by the way, it's all owned by the University of Florida—by the time I got back the University of Florida had moved to a major technology transfer program, working with the city of Gainesville. Had built a startup building and put together a city university consortium with space and bringing in venture capitalists. So we actually got a company started, we wrote some more grants, and we got funded by the National Medical Technology Test Bed. The requirement of the National Medical Technology Test Bed program was that the winners of the competitive grants were required to form a startup company. That's how I became an entrepreneur.

The external maturation of the technology between 1987 when it started and today has been an extraordinary advance that has helped us a lot at every step along the way. We re-developed, from the operating system to the user interface, a brand new type of computer information system that runs in real-time, it's locked in a box, it's standards compliant, where possible, and it is FDA cleared. The FDA worked. They put out in January 11, 2002 a very large document called "Suggestions for Developing Developers of Computerized Devices." We follow that as a Bible. Our thing is a device. It is FDA cleared and it has extreme utility for adoption, nurses they love it at first touch.

What were surprises and what didn't work was the National Medical Technology Test Bed program, in the third year of our funding, the very critical year of going to market, we lost our funding with six weeks' notice due to a line item veto here in Washington. We then suffered a long diversion with serial buyouts by larger and larger companies, and by no cooperation with hospitals for the lab links which we were completely capable of managing one way or another. The outcomes achieved are that we have now got a running system with two ... beds locally. We have about 25 early adopter sites, including at Landstuhl Air Force Base in Germany, where the shock trauma aspect of what the army was after is actually being paid back. We lately suffered another buyout and we have no idea where we're going next.

Thank you very much, and maybe you can help me understand why I'm here.

Joe Heyman – Ingenix – Chair, National Physician Advisory Board
Mr. Sadja?

Richard Sadja – Family Practice of Glendale – CFO
I wanted to thank you for allowing me to speak today, but I'd also like to thank you for your patience because I'm just getting over the flu and so it's difficult to speak for very long. Unlike everybody's that's here contributing today, I am probably the only person that is not a physician. I'm the Chief Financial Officer for the Family Practice in Glendale, which is in Los Angeles. We're a residency program. We have family medicine physicians as well as internal medicine and we're also a psych internship program for psychologists. We provide care for a diverse group of patients, everything from Medicaid, really MediCal in California, through managed care and Medicare.

Because I'm a financial person, one of the things I really will probably spend more time talking to you about is what are the costs involved and does everybody really understand that. We instituted EHR in 2004 and we are now on the newest version of Centricity that has already been certified. We installed next month and we were their third site to be installed. We're ready to go with the exception of one core measure that we still can't go ahead and print out a CCD at the end of the visit, which is a very big problem for us because we don't always finish visits when the patient leaves. How do you do everything before the patient walks out the door? We have ePrescribing. We interface with our labs, two-way interfaces. We are in the middle of doing a patient portal. The patient portal will be up and running hopefully by the end of February, but we are ready for the measures.

On the flip side, what's happening? What's the cost to the organization? Well, number one, EHRs cost more than they save. I don't care what the MGMA data shows; it's not true. You go ahead and what happens you lose certain people within your organization, you don't need as many medical records people, you don't need as many billing people. On the flip side, what you end up doing is you have to go ahead and bring in more people to support the doctors. We now have more MAs than we used to have. We now have to have IT staff. IT staff is very expensive. They get $30 to $70 an hour. We have to have consultants come in. It's very expensive. There's a loss of productivity that you never really fully recover from. We ended up dropping by 70% at first, going to 60%, to 50%, to 40% decreases in terms of seeing patients. We're still 5% to 7%, sometimes 10% below where we were depending upon the doctors. So there's definitely been a drop in productivity.

One of the things that also happens though, is that you have to adopt a continual change, and that causes a lot of issues with physicians. You give somebody a system and say this is what it's supposed to

do and allow you to do, and then you change it every certain amount of year, or two years. There's a constant change. When you're always used to doing your notes in a certain way and now with meaningful use there are new forms, there are new formats, there's new check boxes, it changes everybody's workflows. It's also something within our own systems. Everybody now has to work, whether it's a physician all the way through billing, with new systems. There's a cost of replacement. Every three to four years you have to replace your PCs, your laptops, your service has to be upgraded, and why? Because of the fact that as we go ahead and have more measures for meaningful use GE, whether it is Centricity or anybody else, basically they have to constantly upgrade their systems. It takes more RAM. It takes more memory. It's made it a big issue for us. We just finished an upgrade and it was a simple upgrade to be certified and it was still almost $50,000 between the consultants and the server upgrades. We still haven't gone out and bought any new computers.

Patient satisfaction, to let you know, at first was terrible. Now it's really, really good. Why? It's great because the physicians have now involved the patient in the computerized record. Before they didn't know how to do it; it was seen as a barrier to the patient. Now it's seen as something that they can work with. We're able to attract younger patients. We're able to attract better residents that have more knowledge and want to be in a situation where they can learn using EHR. Our HMO rates have gone up significantly, so that's something that has been really strong for us. Believe it or not, our payment per visit has gone up by almost 60% because we have complete chart notes. So from a financial aspect this has been pretty good.

The thing is, on the flip side, we don't have compliance in patients on some things and it's very difficult to document that compliance. In addition, as I said earlier, we have to go out and spend more money on staff. We have to go ahead and figure out what is the next thing that you guys are going to give us. Because when we get to stage two what is the cost to the organization going to be? At this point, we don't know. If you get to interoperability and a long term standard language, how are we going to convert over our system? So it's going to be very difficult. What it gets down to is don't forget that the EHRs must lead us into the next ... period of what we're going to do in patient care. Does that mean—what?—it's going to be a medical home? How are we going to do that? Is what meaningful use that you're going to bring to us give us that opportunity or is it just going to give us more information?

Joe Heyman – Ingenix – Chair, National Physician Advisory Board
Dr. Scherpbier?

Harm Scherpbier – Main Line Health – CMIO
Thank you, panel members, for giving me the opportunity to share our findings and experiences with meaningful use. My name is Harm Scherpbier. I'm the Chief Medical Information Officer at Main Line Health, which is a health system in the Philadelphia suburbs. The status of our meaningful use ..., we have five hospitals, which is not the topic of this panel, but they're on Siemens and Cerner systems and they're all well on their way to meet meaningful use this year. We have a physician network of 250 physicians on a NextGen information system. We're focusing on the practices that have a high volume of Medicare patients. The ePrescribing part there is going very well. The biggest challenge is the ... documentation and the rollout and the training, and the quality measures, which I'm going to talk more about a little bit later. Then we have a large number of independent practices, about 2,000 physicians, where there's a wide range of statuses. A few are totally ready and have been ready. Many are in flight somewhere and many are in selection mode. Others, unfortunately, are showing no signs of movement.

Our Main Line program to support the clinical works program has a very strong interest and I see the vast majority of practices now aggressively moving toward an EMR and meaningful use. Your program is clearly driving demand and interest, I can see it in the number of requests and applications that we receive. To anticipate Cris Ross' question about connectivity, all these practices are connected to the hospital system using HIE system, our own local enterprise HIE using Mobile MD as our HIE vendor. I find that your team has set the bar for stage one at the right level. It is challenging, it's motivating, it's by

no means a giveaway, and your program in many ways is making my job easy. I don't have to argue much for physicians to move towards ePrescribing or electronic documentation anymore.

I believe you should follow the same philosophy for your stage two, keep the bar rather high and challenging so that in the end we're having a real and noticeable impact. I would, however, ask the committee for more runway between stages one and two. Vendors need to make enhancements to their software. These versions tend to come late or just in time, then we need to implement them, roll them out, and get all users to use the new features. I would like to see a high bar but we do need some more time between stages one and two.

I'd like to comment on the quality measures. I find these to be the hardest part of the meaningful use work, both for the hospital as well as for eligible providers. Some of our vendors require add-on tools to drive these measures for usually additional effort and additional fees. Many of our vendors do not provide the reports standard, so we have to build them ourselves. We need to change the documentation templates to start capturing the prerequisite fields where they now need to be structured, where in the past often they were free text field. Most of all, I would like to ask your help in streamlining and standardizing the submission of data. Liz yesterday asked for efficiency requirements. I see a huge opportunity for efficiency here. We are now required to submit data to stage agencies, as well as federal agencies. In our case, for example, Pennsylvania Act 52 requires us to submit all infection control data and of course pay for performance, PQRI, CMS, Joint Commission. I would like to ask your panel to find a way to help lighten the data submission load in three ways.

Firstly, help consolidate the measures, the formats, and the agencies to which we submit data. Standardize both the numerators, the denominators, the formats and the types of data we support. I think a PCAST recommendation can help there. PCAST has standardized the standards for communication between practices, and I think we should also standardize these data submissions in the very, very same way, including those for immunization submissions, and for surveillance submissions, standardize them and make them one format. Help us eliminate the use of paid intermediaries. Data submission should be standardized and it should be free. In many cases we pay very, very large amounts just for submission of the data, including PQRI, which has a paid data aggregator and submission. So help us eliminate the paid intermediaries.

On the Regional Extension Centers, I have had several meetings with our executive director, a very effective and strong leader. I see the RECs in some of our practices, but too few, and I would like to expand the number of practices that engage the RECs in their projects. I recommend to the panel to permit and even promote REC engagement in practices which are owned by larger networks, either hospital owned or not; often these practices operate as independent small practices and would definitely benefit from REC help. We tried to introduce the RECs to our practices and focused the attention on workflow redesign, the transition from paper to electronic, and on meaningful use readiness.

Finally, on meaningful use information, we use your Website of course and we also receive a lot of updates from our IT vendors, particularly Siemens, NextGen, and Cerner. I have one request, for future stages please provide a cross-walk between the provider meaningful use requirements, and the vendor certification requirements. Since both have slightly different levels of implementation detail, we find ourselves often using both and it would be great if all that detail is in one document rather than us cross-checking both. I thank you for the opportunity to testify. As an implementer of Healthcare Information Technology, I thank you for putting the wind in my sails. Thank you very much.

Joe Heyman – Ingenix – Chair, National Physician Advisory Board
Now we're ready for questions. Oh, I'm sorry, Rob. I'm so sorry, Rob.

Robert Anthony – CMS – Health Insurance Specialist
It's okay. That's what I get for sitting here, Rob Anthony from CMS. I'm going to keep my comments fairly brief. Thank you to all of you for bringing those concerns and those challenges and barriers to light.

Some of these things are probably more ONC comments than they are CMS comments. I do want to address a couple of things here that you've sort of brought to light that I think are really great things for us to keep in mind. Dr. Monteith, you had talked about the problem not being certified HIT and the problem really being meaningful use, and I think one thing that we've discovered as we've listened to a number of folks and read through the testimony is that the problem isn't simply meaningful use either. I think to some extent, there's a fairly balanced approach to trying to achieve those stage one goals here which we're trying to put the technology in place and set the stage for data exchange. But there are definitely issues that you identified that I think we have to keep in mind as we move forward. Usability issues, functionality, evidence based processes; there's no question that that has to be at the forefront of our mind as we proceed on things.

I think it's an excellent point about the hidden costs of EHRs and we're hearing more about that here when we're listening to providers of all sizes, whether we're talking about small four physician practices or we're talking about large hospital programs. I do think that it's encouraging to hear that patient satisfaction is very high, and that speaks to the patient-centric model that went behind a lot of the thinking on this. I'm pleased to get that type of feedback, but I think it's a very excellent point to say are we just going for more information. I think at stage one, setting that stage for data exchange, I don't know that we established those further goals, but that's definitely I think what we're thinking in stage two and stage three.

Where do we go beyond just collection of information? You had mentioned, Dr. Scherpbier about streamlining the standardization of submission data, and that's certainly I think something we signaled in the stage one meaningful use role and certainly something we're starting to talk about now, the harmonization across that, because we know that you're submitting similar data for a number of programs. The challenge is precisely the challenge that I think you've identified, is that in some respects we don't necessarily have jurisdiction, and just as you have in Pennsylvania a particular submission that you have to make, there are a variety of state and local programs to submit to and trying to standardize across all of them would be very difficult. But we're certainly trying to look and see where can we standardize internally for certainly the CMS and federal programs so that it doesn't create that type of a burden, and I can tell you that that discussion is starting to take place now about stage two.

I really do appreciate the feedback about the cross-walk between provider meaningful use requirements and vendor meaningful use requirements. Again, it's something we just started talking about, but I definitely think that that's a useful piece of the puzzle that's not in place right now that would help, especially I think some of the smaller practices that are struggling with how to put those things together. So thank you all for the feedback today.

Joe Heyman – Ingenix – Chair, National Physician Advisory Board
Now we'll try for questions. So if you have a question just raise your card. Judy?

Judy Murphy – Aurora Health Care – Vice President of Applications
Sure, I'll start out with the bookends here. I'm going to start on the end. Dr. Monteith, you started by obviously shocking us and saying that the cart's before the horse and that HIT is not ready. I'd be interested in your comments related to did you think the bar was set right, but HIT vendors are not ready. Then correspondingly, Dr. Scherpbier, you talked about the fact that you thought the bar was set right. I'd be interested in your comments on where you think the vendors are related to that bar. So maybe we can start with Dr. Monteith.

Scott Monteith – Northern Lakes CMH – Psychiatrist
Well, it's a good question. It's hard to say whether the bar is in the right place or not because I think that unfortunately with the analogy that I used we're kind of asking for something that I don't know that we have. So I don't even know that placement of the bar is really the issue. Let me make an important distinction here. Again, I utilize HIT heavily. I notice that I'm one of the few people here who's using a computer for my notes. I'm amazed that we have as much paper as we do here. I'm a firm believer that

we should use computers, especially in meetings like this and not have paper when we're asking hospitals and clinicians to do the same.

So there's no question in my mind that HIT can be incredibly helpful in certain situations. The problem here is that we're talking about ONC, CMS, HHS; we're talking about a national, broad, widespread plan for implementing EHR across big institutions with highly paid professional staff and lots of them and small doctor clinics. You know, 75% of all prescriptions in Michigan are written by doctor groups of four or fewer doctors, and my problem here is that we're trying to do the impossible. We're not there. That's why I mentioned actually at the end, I pointed out that I don't think MU is really the issue. I think that we're trying to do the impossible. So I don't know if that answers your question or not; reframe it—

M
....

Judy Murphy – Aurora Health Care – Vice President of Applications
What would you recommend? Yes.

Scott Monteith – Northern Lakes CMH – Psychiatrist
Good question; excellent question. I love it. What is possible? What's possible is exactly how we approach any other challenge in medicine. We engage in a scientific process based on the evidence and iterative/reiterative process of saying what works and what doesn't work. How do we start to develop this package of treatments, so to speak, that will be effective in achieving our goal of HIT and not simply declaring, as I said in my prepared statement, that we have a cure; that we're there and all we need to do is to get resistant doctors and clinics to start using this stuff. We're not there. I mean that's the elephant in the room here. We have not arrived.

What should we do? We should be doing R&D. We should be focused on an incremental approach. We should be focused on solving problems rather than a marketing campaign. That's what this looks more like. It looks more like a marketing campaign than it does a rigorous kind ... process that's based on fact.

(Interference on line.)

I don't know. Does that answer the question? So R&D—short answer, but I can expand on that.

Walter Suarez – Institute HIPAA/HIT Education & Research – Pres. & CEO
I think you mentioned three things: R&D, incrementalism and trying to solve identified problems. I think the program is trying to do all of those things and more, trying to do incrementally the adoption of EHR. Of course, we have large organizations, like Kaiser and others, that already have extensive implementation of EHRs. Then there are very small organizations ... organizations that are not yet there, so the spectrum was so—is so large that you have to find some base of middle ground to try to create a program. So incrementalism is building to it as I understand it and then identifying the priority areas is also there. There is a series of expectations in this third stage and that's what we call the bar. So in some respects what I'm hearing is you are asking for things that already kind of moving along—

Scott Monteith – Northern Lakes CMH – Psychiatrist
Not at all; not at all. Good point. Your question is well taken. Your points are well taken, but unfortunately, we have a variable here that has served to create a very artificial economy. I will often talk in terms of first generation HIT and second generation HIT. Kaiser, Intermountain, Marshfield are good examples of first generation HIT; really gold standards; really places that are doing the job right. By the way, it's taken them decades to come to where they are now and we learned that AMIA out at Marshfield isn't even going to go for MU in year one, at least as of the time of AMIA. But let's put that aside for a moment. This, by the way, is one of the gold standard organizations for accomplishing this stuff.

The problem is we've created an incredibly artificial economy here. We've got the first generation, which is very sincere and scientifically and rigorously approach to HIT. Good job. The problem is we've injected tens of billions of dollars into this and we've created second generation HIT, which now has caused venture capital chasing ARRA dollars. We now have, by some estimates, over 400 EHR vendors. We have this huge— It's almost like a mortgage-backed securities or collateralized debt obligation situation where we've created this huge monster. One of the questions I would pose relative to the second generation is what's going to happen when people get on the phone when the ARRA dollars dry up and the venture capital chasing them in the natural marketplace causes a consolidation from 400 vendors to 20 vendors and a clinic with six doctors in northern Michigan gets on the phone and says, "I need support," and they call and the vendor is gone? We're going to have a wave of problems stemming from the failure of the second generation HIT. So I would submit to you that we have deviated greatly from first generation HIT and that second generation is very different.

I'd like to give my ... answer for Judy's question and I look at it quite differently. I do recognize stuff from the problems that you point out in health information technology, especially in documentation. I've seen the examples where the documentation tool is more SPAM generated than an actual, meaningful documentation tool. So I think there is some truth there, but there are a lot of meaningful use requirements. Most of them, documentation is not a meaningful use requirement—most of the user requirements are quite doable today. For example, a physician ... an e-prescribing and electronically communicating lab results to practices that work well and where meaningful use is helping me put fax machines out of business, which is, I think, what we need to be doing today.

So I see the approach that your team has taken. It's not so much promoting IT that doesn't work. More, without this stimulus, without this incentive, we would still be laying back another ... and I think the only way to start addressing the problems that you point out, Scott, which are correct, is by driving more use. By driving more use we will start driving to a better use, both on the vendor side, as well as on the providers who we are implementing and using those tools. So I think it's providing the real life experiences that we all need to perfect the actual technology.

M
Point well taken—

Scott Monteith – Northern Lakes CMH – Psychiatrist
However, we have to keep in mind that we should not be experimenting with patients. As I said in my prepared statement, we're experimenting ... tools— My answer to that is that's also, I think, partially true. Often, the methods we use today are equally ineffective or also have huge problems with them, so it's not that we're replacing some technology that used to work great. I think where we need to go— I'll take one example, nursing documentation. People often complain to me, "I can't read the nursing documentation." Well, in the paper world you wouldn't read them either, so it's not like we made your life tremendously worse. Yes, we have to improve it and I think by implementing these systems it's driving us to make the improvements necessary. I think the plan is working as intended. We need to make sure we don't go in a direction where we just throw … technology that doesn't work and that we keep perfecting it. Overall by driving to the outcomes I think we will get broader acceptance and that, in turn, will drive a better use of the systems. That's my view of that.

Joe Heyman – Ingenix – Chair, National Physician Advisory Board
Larry.

Larry Wolf – Kindred Healthcare – Senior Consulting Architect
Wow! How do I follow up that discussion? So I guess I want to kind of ask the question I asked to the earlier panel even though it's kind of out of context with what we've been talking about here. That is one of the things that has been put out there as a big, potential benefit for electronic health records is to improve care coordination. Sometimes that gets the same kind of reduction as the answer of do these three things on the checklist and you can have care coordination. I don't want to go down that road. I

want to actually address the issues that would improve care coordination. I think we've got a good diversity of folks here to look at that, so less from a technology enabling piece perhaps and more from what are the things we really ought to be doing if we want to improve care coordination.

Scott's bouncing his head up and down. I guess he's wired today. Go ahead.

Scott Monteith – Northern Lakes CMH – Psychiatrist
That's a multi-level question and I think the way I'd like to answer is, especially because we're an eligible provider panel, communication, care coordination between practices and between practices and health systems provide continuity of care for patients. From my perspective, we're not there yet. I think the way I look at it, in our health system we're at a plumbing level. We're laying the pipelines. We are sharing orders, lab results, radiology reports, discharge summaries, so all of those will improve the awareness of the team and especially the primary care physician of what's going on and what's been happening to that patient. But I don't know that I would totally claim the mantel of care coordination there. I think we need to go further.

I think in stage one we're laying the connections and yes, we're doing some data sharing, but not quite yet care coordination. That ought to be something that we do in stage two and three. What I mean by that is avoiding readmissions, coordinating medication lists and putting someone in charge of that med list. That's what I meant by higher level; not just sharing the discharge summary, but actually preventing readmissions.

Larry Wolf – Kindred Healthcare – Senior Consulting Architect
So I guess sort of a related piece to that is what are the things that would actually make it helpful and possible to avoid those readmissions? We've heard earlier comments of people having the EHR being the same EHR in the primary care practice and in the emergency department, but when someone showed up in the ED the workflow and practice pattern in the ED was not to look to see if there was information, but to assume there wasn't any and fly essentially blind. I'm exaggerating, but assume there wasn't that information rather than to build on the information that was there. So it's as much a change in practice pattern and developing confidence in the tools as it is having the lab results there, for example, to go, "Oh, there was a prior sodium. I can work with that," or a prior test and I can work with that and not, "I don't know where they're starting on their electrolytes, I guess we'll have to just go from here."

Go ahead, Scott.

Scott Monteith – Northern Lakes CMH – Psychiatrist
Two things: I think it's a great question. First, two parts to this. One, in Traverse City, Michigan, where I'm from, we have a progressive medical center that supports two ambulatory EHRs: eClinicalWorks and NextGen. They aggressively support them. We also have really a model practitioner, who is our new Chief of Ambulatory Medicine, a real leader, an incredibly talented, one of the best EHR implementations I've ever seen. She uses eClinicalWorks. She has had, for quite some time, an eClinicalWorks Workgroup in the ambulatory setting. Remarkably, do any of these eClinicalWorks systems talk to one another or the hospital? No.

Now, there are many reasons why not. One of them is the issue of funding and the fact that a lot of these practices simply don't have the resources to throw at the technology efforts that need to be made to make all of those microchips. That's, I think, an important thing to keep in mind. I've got to tell you that when I look at different places, this is really an exceptional, grade A effort to try to integrate EHRs in the ambulatory setting and they aren't doing it.

Now the second thing: To answer your question more directly, I liked how you said let's kind of ignore the technology aspect. What do you need? It's a decidedly low-tech answer. What we need are clinicians to address issues of interoperability and coordination of care. It's simply good information and that doesn't mean that it has to come from an EHR. I would personally, if I were doing MU, say let's look at issues of

font. Something that kind of goes over a lot of people's heads, but you talk to a graphic artist or you talk to anybody who knows anything about looking at letters and how to easily interpret data, font is hugely important. Yet we have these EHRs producing in Courier font, which, when we use the technology we have, which is fax machines, you start faxing these things and suddenly the letters become illegible.

So I would personally put the focus on things like let's work with fax machines. Let's have good systems for what's relevant information in a discharge summary. What do we need as clinicians, not throw technology at the problem, because it's not working on many levels. Frankly, it's making our job more difficult.

Harm Scherpbier – Main Line Health – CMIO
My perspective on care coordination is, like I said, one level is the plumbing. It is also to decide whose job it is. Let's pick on readmissions. One of the key things after a patient readmits is to make sure that they have a solid point with their primary care physician. Whose job is it to make sure that that happens? I think it's a matter of shuffling the tasks and rebuilding the teams and often there is a bit of a wall between the inpatient side and the outpatient side. We do break that down. I don't— Partially that's a technology and an IT problem, but to a large extent that's organizational and business model problem. That's separate from what we're discussing today.

Joe Heyman – Ingenix – Chair, National Physician Advisory Board
Willa has her hand up. What did you want to add to that?

Willa Drummond – University of Florida – Professor of Pediatrics, Physiology
I wanted to add the usability issue and I wanted to reopen that discussion, especially with regard to ... everything. One thing I started doing was when I was a grad student is sitting around in various units with stopwatches, watching how long it took people to do stuff. Novice nurses took about two minutes to do a particular task; an expert could do it in about ten seconds. When we're working in critical care seconds matter. Seconds matter. They matter a lot. I one time watched a respiratory therapist with a stopwatch spend five and a half minutes on two different computers trying to get logged in so she could chart a one-minute encounter. It was terrible.

We need, as clinicians, to have streaming data come into our minds and our eyes. We cannot either get or express that by typing. In inpatients and in many outpatient places the clinicians are hands-on providers literally, surgeons, intensivists, radiologists, cardiologists; they cannot do what is expected all by themselves. We work with agents; in terms of discharge coordination from the NICU, boy is that a challenge. We have a team of three people working on that in the background. One of our key people is about to retire about the same time that this crash install is supposed to go live. I think in some situations we are headed into a complete catastrophe. In some cases, the insistence on grabbing populations that are highly Medicaid or Medicare supported and in our case it's Medicare, half or more of our patients are publicly funded patients. They count in the denominator for meaningful use, but not one single criteria of the meaningful use applies to those patients, not one, so usability, speed, ability to see stuff.

One of the things that happened to me in these buyouts over time is that this extremely well tested user interface for being absolutely visible and usable in critical care, has morphed both in color, in font and design to fit a particularly company's logos, etc., etc. and their little subpopulation of what they thought they wanted. Ours is FDA tested. It is clear. We tested these user interfaces up one side and down the other. The morphing of those user interfaces has destroyed the usability and the visibility and has never been tested. It's still on the market. So we need attention to detail when it becomes life or death in inpatient settings for dealing accurately with the data.

I provided you with the first three chapters of what is actually a five-part chapter called *The Dream of a Paperless NICU*. The scenarios in those chapters are from real life, every single one of them. Down times are a huge issue. If you're a 24/7/365 quaternary, tertiary referral hospital with perinatal care services how in the world do you identify a patient when it's just been born when the computer systems

are down. You cannot get a medical record assigned or a national identifier, by the way, and until you can get that defined, because it's designed as part of the primary key in the particular system, nothing can run. So here you're dealing with critically ill babies. Cabinets are locked. Meds don't come, can't even order an x-ray. We have enough human workarounds that the x-ray techs will sometimes take the picture, but without the admission identifier it won't be developed.

Joe Heyman – Ingenix – Chair, National Physician Advisory Board
Liz?

Elizabeth Johnson – Tenet Healthcare – VP Applied Clinical Informatics
As I listen to each of you I hear a tremendous amount of caring about our patients and quality of care, which is really what this is all about and although you may have experience, as all of us have, some difficulties with technology and some concerns about the reliability of the data and we are acknowledging that. I do think it is time to start in the move forward and much like you, Harm, I see this as way to get people on the same page and move forward. It has certainly been that in the organization that I work in, so as we move forward and talk about this I'm going to challenge you with another question not in any way taking away for your concerns, but you talked about the cost of this. You talked about the interruption in process and so on. I acknowledge it. I see it every day in the world that I live in, just like all of us do.

However, I see, when you begin to talk about readmissions there are some real ways to improve and therefore, to bring some dollars, improve the quality of patient care; that's our first priority; but also bring dollars back. Richard, you're our CFO, so we're going to pick on you first and then we're going to go to our physicians and say do you not believe; I do; that we will see improvements in care? It's not a one-for-one ratio, but we do believe at the end of the day this is going to improve care. Having the information I need as a nurse at the bedside or as a doctor to render better care is the right thing, right? So can we get some of those dollars back?

Richard Sadja – Family Practice of Glendale – CFO
You know something? That's one of the things that I had stated is that we do see an increase in our rates from our HMOs. We do see the fact that we're able to go ahead and capture all of the dollars, the charges that we're putting through and that they've greatly increased. The problem is that there's a sustainability issue and so you're constantly going through and having to keep on reinvesting and that's one thing; that as soon as you bring in an extra few dollars you're reinvesting it back into your technology. You didn't have to do that in the paper system. I think that's one of the things that's really at issue for us and it's not just us. It's many of the smaller groups that don't even have any support from a hospital. We get some hospital support as their residency program, but when you're trying to go ahead and you have to buy ten new laptops you don't want to buy cheap laptops, because you want them to last three or four years. There is $25,000. We just brought in this much money. We now spent it.

So I don't know that we're going to see a huge increase in our overall revenue. If we could make it revenue neutral, I think that would be great. I think it's fantastic though that we have done a better job of capturing data. I'm not sure what the data means, because I'm the one that works with reports and works with the faculty, but there's so much data available that it's almost overkill, but long-term, hopefully, we'll find ways of using that. I don't know if that answers your question.

Elizabeth Johnson – Tenet Healthcare – VP Applied Clinical Informatics
It does. Harm, how do you feel about that?

Harm Scherpbier – Main Line Health – CMIO
It's a complicated question. The ROI on health information technology is elusive. It's hard to prove and it's hard to calculate. It's hard to measure. I have two thoughts about it. I believe that as a society if we make our care more efficient that at some point we should be able to deliver care for more people at lower expense. Today though the people making the expenses in the healthcare IT are not the ones who

benefits accrue to, right? We, healthcare providers, invest a lot in IT. If we are able to provide care for less money that would accrue to the payers. I think the ACO movement is trying to change the incentives a little bit there, so I think it's to be seen, to really ... really matters. I can see the new business models are trying to acknowledge that.

The other part allows me to come back to something I mentioned earlier in my testimony. I still see that we are implementing health information IT that includes a lot of inefficiencies and opportunities to be more efficient and the biggest area is data submissions. But there are many other areas where I feel we need to do what we're doing, but we should really focus on— Every time we add a requirement, I always try to say, "Okay. If we add something new we should also be taking something away, right? I do that same thing in the hospital. If I add a new technology here I should be at the same time, taking something away so that at the end of the day the tower doesn't get too high and unmanageable.

The same thing for the meaningful use perspective: As you add a couple of new things in stage two, try to also say in exchange for adding this what do we take away. I think there is a lot of opportunity there to then, at the end of the day, make the load lighter.

Elizabeth Johnson – Tenet Healthcare – VP Applied Clinical Informatics
That's a very good point. Scott or Willa?

Willa Drummond – University of Florida – Professor of Pediatrics, Physiology
I would like to speak for children. I forgot to mention that, first of all, I have been working on standards in other organizations for a whole decade, starting with … for a couple of year's right after I got out of grad school. … Healthcare crashed on 9/11 right along with everything else at a meeting in Toronto. A couple of years after that I was tapped to work on the Executive Steering Committee … the counsel and Clinical Information Technology for the American Academy of Pediatrics. I've been doing that for six years.

The advocacy for children and children's HIT is building and people are beginning to understand that children really are not little adults. For meaningful use on vital signs though, for instance, the most meaningful vital sign of a newborn is head circumference. It is not included in the vital sign templates or caveats for meaningful use, stage one. Big oversight and if you don't have a template for something like that how in the world are you going to put it in an electronic system and how are you going to get people to understand how important is it.

Elizabeth Johnson – Tenet Healthcare – VP Applied Clinical Informatics
I want to respond just a little bit too that. I guess as an implementer, like yourself, I always think of meaningful use as being the baseline. So when we designed our implementation for neonatology in pediatrics and young adults and old adults and so on, we only made sure that we had those elements that were required as part of what else we were going to require, so you're exactly right. You absolutely have to do head circumference, but we included it. So I don't think it was intended as part of meaningful use to say this is all we want you to do. I think what we were saying is this is a start and we want you to report on these things, but recognize, we're in the business of delivering quality care, so only recognize we're asking you to report this, not that that is all we think you should be doing. Does that make sense?

Willa Drummond – University of Florida – Professor of Pediatrics, Physiology
Is it okay if I speak? The 200 new vendors, 300 new vendors in the market, as a developer I can guarantee you that they have developed specifically for the specifications of the meaningful use. What I did in CCHIT was sit two years on the child health panel experts that are writing and red penning specifications and two years on inpatient panel. I am a specifications writer; with a red pen, I can atomize just about everything, but a lot of that work has been lost. We stopped essentially being able to do that effectively at the 2008 level because of the 18-month timeline of the CCHIT. So the 2009 and the work product that was working on for 2010 when meaningful use was announced is lost somewhere. I actually don't know where. Those specification sets were devoted to delivering clinical care and supporting it in a computer. They really dealt with the clinical realities that docs and patients face.

What meaningful use looks like to me is an effort, and an excellent effort, by the way, to improve population health. I think that is very, very, very important, but what has actually happened is that this has been another turning aside from the progress that we were making of actually being able to improve and deliver clinical care. Especially in situations where there is essentially no other way to do it than get a real-time computer grabbing stuff automatically from 100 different data streams so that you can see what's happening inside and outside your patients.

I'm actually concerned that we need to go back to those specification sets that existed for 2008 and 2009 and revisit those in terms of how we write meaningful use for the future. I think it is an experiment. I think it's a necessary experiment that we're doing and I think it is absolutely imperative that efforts like this keep rolling forward, because what I see you folks doing is iterating you've done something and then you call a group of people together that are experts to see whether the something that you have done is working or not. Having been here and having been through just as much of an experience, I actually think the next iteration might just include a broader population. Might look harder at the inpatient side of what is happening here and understand that inpatient and ambulatory environments have essentially different requirements, just like children and grown-ups do and basically focus a bit on that.

I can guarantee you that my inpatient hospital is going through the money and they're doing it essentially in the complete absence of any interaction with their physicians because the physicians are not their employees. We have been completely disempowered from having any roll whatsoever in what is about to impact us and our units in that big, complicated hospital.

The other hidden issue here is that the physician that using these systems is the medical, legal, responsible person for how that system is performing. I knew that from somewhere. I stumbled on it in the University library of the University of Utah. They have a wonderful technology law library. So when I went home to redevelop the prototype I absolutely insisted, that these developers are going to, one, have specs; two, they're going to do it right; three, we're going through the FDA and we are going to test until this thing works right. With only 6 people in 116 areas of expertise, including nursing informatics, medical informatics and a whole bunch of computer science, including secure systems, we rebuilt the computer literally from the operating system out. It is a weapons grade system. What I was doing in … when everything came down on 9/11 is I was giving a keynote talk to a real-time situation where—

Elizabeth Johnson – Tenet Healthcare – VP Applied Clinical Informatics
Willa, I hate to interrupt you, but we need to get to some other questions. Thank you so much for your good comments.

Willa Drummond – University of Florida – Professor of Pediatrics, Physiology
The issue is specifications are critical.

Joe Heyman – Ingenix – Chair, National Physician Advisory Board
Scott, did you want to just add something briefly?

Scott Monteith – Northern Lakes CMH – Psychiatrist
Just very quickly. I'm looking at Justin Starren from North Marshfield Clinic's estimates on ROI. His net estimates for implementing MU through 2017 are negative in two different scenarios that he came up with.

Secondly, if I heard your question correctly it was can we do better with correct data. Of course we can. The question is, and I think as a psychiatrist, saying it's very important that we look at our assumptions as we go through this process it's important that we not assume that EHRs deliver better data. So we can't make the leap and say will you make better decisions if you have better data. Absolutely, but I'm here to tell you that often we have better data when we don't have EHRs.

Third, it's a highly nuanced thing implementing an EHR. Look at the talent we have at Intermountain at Marshfield. Decades. It's incredibly nuanced, an incredibly difficult thing thinking that we can just start plugging this in like Quicken for all of our ambulatory docs in the United States we're asking for problems.

Joe Heyman – Ingenix – Chair, National Physician Advisory Board
Rob?

Robert Anthony – CMS – Health Insurance Specialist
Thank you. I probably should have asked this of the last panel, but it just keeps coming up as a theme. For my own edification I wanted to get a sense of a number of you keep addressing when the physician sits down to put this in, when the physician stops to take time to enter this information, when the physician does this. How many of you interpret the meaningful use objectives as the physician being the primary enterer of information, the primary conduit of information for that EHR?

Scott Monteith – Northern Lakes CMH – Psychiatrist
I don't.

Richard Sadja – Family Practice of Glendale – CFO
I do.

M
I don't.

M
I do.

Richard Sadja – Family Practice of Glendale – CFO
I'm the only physician in my practice, so yes, I do.

M
Well, in your case I think it would be –

Scott Monteith – Northern Lakes CMH – Psychiatrist
It depends. There are so many situations and roles. If, for example, you say computerized physician order entering, in that case we use the physician definition as a physician, physician assistant or nurse practitioner; the bulk of the cases that is the physician. I mean some of them do, but in the majority of cases, that is the physician. If we implement office systems, we do promote a strong role for medical assistants when they're there; that they take a heavy part of the burden, but the primary person responsible for the data is the physician, yes. Responsibility … doing it are two different things.

Robert Anthony – CMS – Health Insurance Specialist
Certainly and I guess I'm trying to get probably a sense of both, but more, I think, of the latter. Who is actually operationalizing information being entered into it?

Scott Monteith – Northern Lakes CMH – Psychiatrist
The reality is it is very complicated. It's based on a million variables. Our institution is able to subsidize each of the doctors to the tune of about $20,000 a year to support dictation costs, so we have dictation and transcription, which helps a lot, but there is still a lot of entry that we need to do. So it's not an all or none and it's going to depend on many, many variables: the setting, the size of the practice, etc.

Harm Scherpbier – Main Line Health – CMIO
Dictation is a good example. If you look at what's going on today where is the most data coming from? Dictation, which is usually from the mouth of the physician and handwriting, which is usually from the hand of physicians, so no matter how you turn it, ultimately a physician will have a strong hand in driving

the documentation in electronic format. To move from handwriting and dictation toward more on-line, real-time documentation in the computer system I think the physician is the most likely person to do that.

Richard Sadja – Family Practice of Glendale – CFO
Also, the smaller the practice then, of course, one of the issues about meaningful use is that we want to generate incentives for smaller practices to adopt technology to improve care, as the smaller the practice the more likely that it's going to be the physician entering that information.

Harm Scherpbier – Main Line Health – CMIO
There have been physicians in our health system, who have asked me to fund Scribes. That's a short conversation. That's just financially and also conceptually not realistic and we're not doing it. One of the unintended consequences I think is not only what happens when we have a wave of EHR vendor failures, which, of course, are going to occur, but the other way is the medical/legal implications of everything we're doing because of this phenomenon of the fact that the doctors are responsible, yet it's really making it more difficult. I cited some of the problems in my testimony.

Joe Heyman – Ingenix – Chair, National Physician Advisory Board
Judy.

Judy Murphy – Aurora Health Care – Vice President of Applications
First of all, thank you. I think this has been an interesting twist, really, some of the philosophical discussion that's been going on here. It has been intriguing, I think. It caused me to think of some things that I hadn't thought of, but I do want to turn to a more pragmatic point of view now. For those of you who are capable or interested—Willa, I know this is going to rule you out, because it was pretty clear you're not actually an eligible provider in this case, but I think the other three, are you going after meaningful use? If so, one of the questions that we asked you to address was did you feel you got the communications that you needed. Then, have you used RECs? If so, have you found them helpful? Are you connected with or thinking about being connected with an HIE and how is that going for you? I know that's a pretty big, loaded question, but I feel like that might be a good way to wrap up.

Scott Monteith – Northern Lakes CMH – Psychiatrist
Do you want me to start?

Judy Murphy – Aurora Health Care – Vice President of Applications
Sure.

Scott Monteith – Northern Lakes CMH – Psychiatrist
That way I don't forget all of those questions. Connected with an HIE: Yes and no. I mean it's an ongoing project. Whether it comes to fruition, we don't know. They're out there. We've got them at the regional level. We've got them at the state level and national NHIN. I don't know.

The other question about going for MU: Probably not. There are a number of reasons for that. One of them is I'm not sure how relevant it is. Number two: Lots of concern and I'm speaking for others as well, over a lot of unanswered questions. This gets at one of your other questions. Are the ARRA dollars taxable? How will those dollars be dealt with? What will happen if you move from one institution to another, so on and so forth? I've got literally about 80 questions that I sent off. Somebody here I think may have received them. I can send them off. So a lot of unanswered questions and frankly, when you start to look at your flow of Medicare and Medicaid you start to ask yourself, "Is this really worth it?" I know yesterday somebody testified to the fact that they did the math and they were going to get $2,000.

M
That was me.

Scott Monteith – Northern Lakes CMH – Psychiatrist

Yet you're opening yourself to huge bureaucratic red tape. You may even be opening yourself to liability. What happens when you get a letter from CMS or ONC or HHS or whomever or IRS and it says, "By the way, Doctor, you claimed that you had met MU. We're going to audit you." What kinds of records do you need? What's that audit going to look like? How long do you have to keep the records? The questions go on and on and on. Frankly, when you look at it it's like, is it worth it? Medicare and Medicaid are, for many doctors, becoming a less relevant funding stream. When we at cuts we're more concerned about the 25% cut that we're facing in 12 months than we are a one percent cut.

In terms of information, no, I have to say. Again, you guys are great. You guys are working hard. You're all very talented. You're all very committed. Again, I think you're trying to do the impossible, so none of this is directed at anyone personally, but frankly, it has not been a good communication job.

I'll give you an example. We have a local physician organization that is linked with the MSMS, Michigan State Medical Society, state branch of the AMA. One day one a couple of weeks ago I received an e-mail and I was stunned by it, because it said that in order to receive incentives you didn't have to meet MU. All you had to do was buy an EHR. This is written by somebody, I guess, in MSMS and they were disseminated through these physician organizations. A week later somebody else, some other HIT consultant, had written something that they forwarded that said you did need to meet MU for a 90-day period or whatever. I took these two e-mails, cut and pasted them—and I'll share them with you if you want—cut and pasted them and sent it back to the executive director and I said, "Can you help reconcile this?" She e-mailed me back and she said, "I see what you mean!" I still haven't heard a response.

So in terms of information, no, we have not gotten good information. It's very complicated and, frankly, it's caused a lot of us to have a tremendous amount of fear and say for the two-grand a brilliant colleague of mine at UCLA says do not implement for ARRA dollars. It's the most ridiculous thing. If you're going to implement HIT do it on its own merits. That said, and you referred to it, unfortunately, a lot of people think that all they've got to do is buy an EHR and they get a check in the mail for $44,000 or $64,000. They have been so misled. A buddy of mine, who has a service company that primarily works with one of the better vendors said that, "Scott, half of the doctors who are coming the me believe that this is what's going to happen."

Now, the cynical part of me would say that perhaps the vendors have trumped that up, but the more generous part of me would simply say that we've done a terrible job of communicating. There are a lot of misunderstandings.

Joe Heyman – Ingenix – Chair, National Physician Advisory Board
Let's see if anybody else wants to comment, because we're kind of using up the time. We only have a few minutes left.

Richard Sadja – Family Practice of Glendale – CFO
We have not had any plans to go into an HIE at this point. Part of that is within our system in southern California there is no-one doing anything. It's very limited, so we really don't have any reason to try and go forward in that direction. There are immunization directories and that's about it right now, so we're at a standstill there.

In terms of the RECs, we haven't used the RECs. We've really gone ahead and used our vendor, number one. Then there are things coming out from the California Medical Association, a few other ... and that's really the direction that we took. Actually, it's been very good and that's one of the reasons with GE and Centricity we were able to move forward so quickly into having ourselves set up to meet the most of the standards.

We are going to go after meaningful use. It's a little disappointing though for us in some ways, because it's always been a moving target as to what we were going to get and what we were going to do, how the dollars were going to be figured. For us right now, we see that we're going to get a lot less money than

we ever planned on. Now, we needed to make upgrades and we would have had to go in this direction anyway, but the dollars are not there and I think that that's something that if there is out of the 15 providers a total of what is that, 444, so about $650,000 or $700,000 that we're eligible. We'll be lucky if we get $250,000. That's going to be kind of a disappointment over the next few years because we have to invest almost that much money in redoing our technology anyway. So it's really going to be something that's really revenue neutral for us.

Harm Scherpbier – Main Line Health – CMIO
On the meaningful use, all four acute care hospitals will apply for meaningful use in 2011 of the Main Line Healthcare. Physician practices, about one-third, about 20 out of the 60 practices will apply for meaningful use in 2011. The rest will go probably in 2012. The community physicians it's kind of hard to know because they're so all over the place. I expect between 10% and 20% of them to go in 2011, given the trajectory they're on right now and the rest either later or not at all.

On the use of RECs, Judy, you asked: I would like to see our RECs used in way more cases than we are using them today. There are two ways to do it: Broaden the definition of primary care, which I think is happening a little bit. You can find more physicians in the role of the primary care physician and use the RECs there at the reduced rate, so that will be a good move. Secondly, allow the use of RECs in practices that are owned by a larger organization that would also be very helpful so we can bring the RECs into a lot of these practices.

On connectivity, yes, we have our own enterprise health information exchange to all practices, who use Mobile MD as the HIE vendor. Most of them are hooked up for lab, radiology, transcription and now orders. We are concerned about the state efforts there. I really echo what the first panel today said, that these local efforts are really taking hold, but we're worried about whether a state HIE, which are, at this point in Pennsylvania fairly dysfunctional, whether that will cause us to have to do rework. Our hope is that whatever happens, we will use our local HIE as the on-ramp to whatever is up there, whether that's state or NHIN or whatever it is.

Your final question on information: Yes, we rely a lot on our vendors to keep us up to date. We do, of course, read all of your information.

I have one final tip there. The final spec, the final rule includes it's almost like you give a Word document with all of the changed tracks in, so please, don't include all of the comments; just the final state without having to read through all. Somebody said this so we didn't do it. Somebody said this so we didn't do it. Somebody said this, so we didn't do it. Somebody said this, so we didn't do it. Finally, you get to the kernel that you need to know, so I could see that you reduce that from 800 pages to maybe 100 by not including the whole, so turn change tracking off in your final document. That would be great.

Joe Heyman – Ingenix – Chair, National Physician Advisory Board
Thank you very much, all four of you. Very provocative. Thank you a lot.

(Break)

Judy Sparrow – Office of the National Coordinator – Executive Director
Attention, everybody, we're ready to resume if you'd please take your seats. Thank you.

Judy Murphy – Aurora Health Care – Vice President of Applications
Let's go ahead and get started now. We're on to panel five. These are "Early Adopters of Meaningful Use Seeking Attestation" from the hospital side. We'll be having two different panels on the hospital side. There are four presenters in each of the sections. Rob Anthony is going to be doing a bit of reaction at the end of that.

On this panel Joanne Sunquist, who is a Nurse, CIO, from Hennepin County Medical Center in Minnesota; Nancy Vogt, who is the Deputy Chief Compliance Officer from Aurora Health Care; Chuck Christian, who is the CIO from Good Samaritan Hospital in Indiana; and Denni McColm, who is the CIO at Citizens Memorial Hospital in Missouri. We'll go ahead and go in that order if that's okay.

Joanne, I'd ask you to start first.

Joanne Sunquist – Hennepin County Medical Center – CIO
Co-Chairs Johnson and Murphy and members of the workgroup, thank you for providing me with this opportunity to testify today. I am Joanne Sunquist and I am the CIO at Hennepin County Medical Center in Minneapolis, Minnesota. HCMC is a 469-bed, safety-net teaching hospital with 37 outpatient clinics. We also support a larger safety net continuum of care through a number of affiliated organizations where we have also implemented our electronic health records.

HCMC embarked on a journey towards an electronic health record in later 2004. We chose to replace a best-of-breed model and implement a fully integrated, clinical and revenue cycle system for our hospital and clinics. Fortunately for us, I believe, we chose Epic. This $68 million capital investment was supported by a return on investment analysis demonstrating a seven-year payback, which we are on schedule to deliver in full and that's even before the meaningful use dollars.

HCMC used a phased enterprise approach to implementation, most of our go-lives being in 2005 through 2007. Since then, however, we've added additional functionality, as well as done a number of upgrades. With executive and senior medical staff support we achieved a high level of standardization in our implementation, which ultimately helped position us well for stage one meaningful use. An example of this is our current 97% CPOE utilization. We've just got a few dangling neurosurgeons out there.

We have had a number of challenges relative to being meaningful users seeking attestation. First of all was knowing when to begin working on our readiness assessment while waiting for the final rules to be published for stage one meaningful use. We didn't want to get too ahead of ourselves. Secondly was really figuring out what was the structure, processes and resource needs that we needed to have to meet meaningful use, reporting and attestation requirements. Our initial estimate on resource requirements has proven to be insufficient and we have now added resources in order to support this process.

Thirdly was educating our board, leaders, physicians and medical staff on meaningful use and what it means to them. Lastly, dealing with a lot of the questions on the potential impact of meaningful use from a financial perspective with the complexities on the formulas, the timing of payments and the confusion, especially around Medicaid payments and this has been enhanced by, first off, questions about who gets the money. Secondly, is the money really going to come? I keep reminding people that meaningful use was not part of Obama Care. Thirdly, the auditors arguing about how and when we can recognize revenue from meaningful use once we get it, so more to come on that.

Our largest challenge, however, has been creating the reports for eligible hospital meaningful use objectives and quality measures and this has become, frankly, an onerous, difficult and time consuming process and a number of other folks have talked about this today. This is in spite of the fact that we are working closely with our certified vendor, who has provided us with certified reports. We know one of the pitfalls of being an early adopter is that we're on the cutting edge of figuring out all of the report logic and that those who follow will benefit from our efforts. However, we have some concern that the difficulties organizations are facing I producing the reports will result in significant delays in attestation, while not inherently adding value to overall intent of meaningful use.

A couple of main reasons for these problems, and some of them you've heard about already today; one of the biggest ones is workflow. While our vendor has attempted to define primary and alternative workflows and structured data elements required to support reporting on each objective and quality measure, organizations may or may not have implemented this system using these exact workflows.

Therefore, the reports provided by the vendor will not produce accurate results unless we change our workflow and/or documentation requirements. This effort multiplied by the number of reports is really sizable.

Secondly, the quality measure specifications are, frankly, so specific the development and records created for meaningful use quality measures are unique. The same report and logic used for the measures in other programs, such as PQRI, are not uniformly shared for meaningful use; therefore, we may already be reporting on a measure or similar measures for other programs, but we have to redo the quality measure record build for the meaningful use reports. Again, you've heard this same issue from others testifying today. I gave some specific examples on this actually in my written testimony.

In terms of what we think is working for us, we have put in place a structure around meaningful use attestation with oversight of a project manager using standard PM tools and we have a tight partnership with our performance measurement team at the hospital, as well as the data warehouse group. That's been key to what we hope will be our success. Secondly, in the state of Minnesota we have representatives on all of the major e-health committees. We're active in the Minnesota Epic User Group, which is sponsoring numerous joint activities to support achieving meaningful use. Through this active involvement at the state level we're able to influence the direction at the state and collaborative with our peer organizations. Thirdly: The working relationship that we have with our vendor, Epic, has been very important to our hopeful success. We have partnered with them for the past several months on report development and they produce a monthly readiness review report for us to help keep us on task. As previously discussed, our biggest surprise in preparing for meaningful use has been the difficulty in producing the required report. While we had planned to attest in April 2011, that will be delayed somewhat due to our challenges with the reports.

We've been very thankful for the resources provided by the ONC and have appreciated Dr. Blumenthal's appearance at the last two ... forums, as well as the 2010 Minnesota e-Health Summit. With that I see I'm out of time. Thank you, again, for providing me with the opportunity to testify. I really appreciate the leadership you are all providing as the HIT Standards Committee Implementation Workgroup.

Judy Murphy – Aurora Health Care – Vice President of Applications
Thank you, Joanne. Nancy?

Nancy Vogt – Aurora Health Care – Deputy Chief Compliance Officer
Good afternoon. I am Nancy Vogt. I am the Deputy Chief Compliance Officer for Aurora Health Care and I really appreciate the opportunity today to participate in this hearing.

Even with my somewhat unusual mix of experience in health information management, EHR implementation and regulatory compliance I have really struggled to assist our meaningful use team at Aurora in defining and applying the requirements. Given the current federal enforcement climate and given the fact that the EHR Incentive Program is already on the 2011 OIG Work Plan, meaningful use has risen to one of our top compliance priorities in our organization. We're fully committed to following the rules; we're just not sure we understand them. We hope to attest to meaningful use in April of this year, meaning we're already within our 90-day EHR reporting period.

(Three minute interruption in recording)

When the EHR information center opened at the end of December, I immediately called and gave them our four top questions. I was transferred from level one support to level two and then from level two to level three and I'm still awaiting a call back from level three, which I do expect this week. I have to say they've been responsive in calling me back to let me know they don't have an answer.

EHR technology and implementation is complex and variable. I think there is a critical need for more clear and expansive guidance and perhaps more flexibility. The EHR information center needs to have

the knowledge and the authority to answer organization-specific questions. In the absence of this, eligible hospitals and eligible professionals need to be assured that they're not going to face repayment obligations or enforcement penalties because they've tried to do their very best to interpret the regulations.

In closing, I would like to emphasize that Aurora Health Care and many healthcare providers are really enthusiastically pursuing the benefits that EHRs offer to our patients. We appreciate the financial incentives; these will certainly help us to advance our adoption and our technology. Even after all of the diligent efforts that I've made to try to get clarification, I have to say I will feel we are at risk in April when we attest unless we receive confirmation of the accuracy of our current interpretation. In the meantime, at any point in time ONC or CMS can issue an FAQ or the EHR information center can answer one of my questions in a way that will be disappointing to us that could cause us to start over for a given objective.

Thank you, again, for allowing me to participate today.

Judy Murphy – Aurora Healthcare – Vice President of Applications
Thanks, Nancy. Chuck?

Charles Christian – Good Samaritan Hospital – CIO
Good afternoon. Thank you very much for the opportunity to speak. I am from the South. So, I may go a little slow. I'm Chuck Christian.

Judy Murphy – Aurora Healthcare – Vice President of Applications
You only get five minutes.

Charles Christian – Good Samaritan Hospital – CIO
Oh, I'm sorry. Well, I'm hoping the clock's from the South as well, so it'll run slow, too. Thanks very much for the opportunity to address the work group this afternoon. As a member of a community hospital, I'm not sure that we would be classified as an early adopter, but we did early on recognize the benefits of the appropriate implementation of healthcare technology to better our patients. This … is a 232-bed, community hospital in southwest rural Indiana. We are the largest, healthcare facility in a five-county area. We've been serving that community for 102 years. Just to give you an idea of what our case mix is, we're at least 67% Medicare and over 10% Medicaid. We are being supplied and funded by the government today and we realize that.

Although that Good Sam has been one of those hospitals in rural Indiana that has addressed and taken hold of healthcare information technology, I don't think that you can say that it's just implementation of technology is the thing that's made us successful. It's been the appropriate application of technology and learning how to modify those processes to do that. We're also an early implementer of health information exchange. I'm in Indiana and I have five to choose from. We are the first hospital in southwest Indiana to connect to the Indiana Network for Patient Care and the Indiana Health Information Exchange. We're taking advantage of that robust health information exchange infrastructure in Indiana.

Some of the barriers that we ran into going down the road for meaningful use: One of them is about determining the exact definitions and getting clarity on what those measures are. Although there's been multiple clarifications that's come out of both ONC and CMS, those clarifications have caused for additional analysis and continued review.

The other thing that I wanted to mention is Good Samaritan Hospital is like the majority of the hospitals on the market today. We have not implemented a homogeneous EMR. Most hospitals have implemented a heterogeneous group of applications to meet the needs of our facility in our community. Unfortunately, our vendors are now going out and certifying the complete EHR's. They're not certifying the modules because of the expense. So, it leaves us with a lot of questions and a lot of chin scratching going on about where do we really stand. There's not a lot of clarity that we can investigate that right now.

Other CIO's of healthcare organizations I've spoken with are basically pausing. They're trying to figure this out before they move forward because these decisions cost millions of dollars. In facilities like mine, we don't have millions of dollars to make mistakes with. We have one-shot to get it right. I've been doing what I do at Good Samaritan for over 21 years, so I like getting it right. That's why they … keep me there or they just don't want to break in somebody else.

The other thing that I want to make sure that everyone understands is the compression of the timelines and the collision of meaningful use with everything else we have going on—this little thing called ICD-10, EDI 5010, and this other thing called healthcare reform. We're just now starting to figure out what healthcare reform is going to mean to the organizations, specifically related to the health information technology requirements. If you look at some of the definitions of ACO's, data is going to be king. I don't sleep very much now. I have no hope to do it anytime in the future.

One of the significant efforts—I think you've heard this, over and over, from the people that I've heard testify—is related to the quality reporting of measures. This is the one area of meaningful use that causes me to scratch my head a lot. I don't have a lot of hair, so I'm getting a lot of skin when I scratch. I don't know if we're going to be able to meet the quality reporting requirements because I'm not sure that we or anyone else fully understands what those requirements are going to be. So, we're asking a lot of questions. Our colleagues are asking questions. We're looking for the clarifications they're getting, but there doesn't seem to be one singular source of information. You've heard a couple of the physicians testify that there is a lot of misinformation out there. So, we really need good, credible information that's out there. The timeframes are growing nigh.

The last thing I wanted to mention since my time is running out—my good, Southern English is working on me—is related to the implementation, just making sure that we don't create a situation that we're instituting more errors into this situation. The other thing that we're working with our medical staff to make sure that the technology is implemented appropriately and that we're not creating extra holes in the Swiss cheese that we can line up that we can harm our patients. Because, in our community, the patients we harm are probably going to be my friends and my family that I go to church with and I buy groceries with. That's not a conversation I want to have in the … line.

I want to say thank you for the panel, for the work that you're doing. I want to thank ONC and CMS for the communications that are coming out. Dr. Blumenthal and his team have been more than gracious with their communications, willing to engage all levels.

Keep in mind that the information that I have … they operate with at Good Samaritan is a little different than your usual and customary CIO in a community hospital. I'm pretty well-engaged with CMS through the AHA, through CHIME, and a few other organizations, so what I know is not typical. I'm taking this information back to my peers in Indiana and having share of that, too. So, thank you for the opportunity and the experience.

Judy Murphy – Aurora Healthcare – Vice President of Applications
Denni?

Denni McColm – Citizens Memorial Hospital – CIO
Thank you for the opportunity to testify. At Citizens' Memorial, we are strongly committed to using health information technology to improve the quality of the care that we provide for our patients. We are real healthcare system located in Missouri. We began the implementation of our EHR in 2003. We've been able to eliminate completely paper medical records throughout or continuum of care. That's one thing that is unique about our system is that it includes services beyond acute care and ambulatory care. Our EHR also includes the care records for patients in five long-term care facilities, one residential care, home health, and hospice, so it's a pretty powerful tool. We're even connected to patients in their own homes through in-home telemonitoring.

We'd like to be able to attest to meaningful use for the hospital on May 31st. That's because our fiscal year ends on May 31st and our CFO would really like to have that money in this year. With some significant work, we are on track to meet all the measures, but we have a few challenges that we'll have to overcome to be able to do that.

As mentioned by others today, one of those challenges is the complex reporting for compliance. While we will receive reports from our vendors, in the meantime, we have written reports internally to understand where we stand on each of the measures. Development of these reports has been labor intensive. They have required multiple revisions as clarifications have come out and as we've changed our own processes and added structure fields to meet the standards for compliance.

Also, as discussed by others today, another challenge for us is certification. While our vendors are all certifying their systems, we are left with what we see as four certification concerns. One is that the EHR vendors must have separate components of the certified complete EHR tested and certified before they can sell those components separately. If the corollary of that holds true for us as a hospital, we would have to buy all of what they certified as a complete EHR. It would be a significant cost to our hospital. For example, we don't own the CCD interface that our vendor certified as part of their complete EHR because we own another certified product with which to accomplish that measure. So, if we had to purchase that, it would be a considerable cost. It would be something that we just literally not even implement or use.

A second certification challenge is certification of interfaces and reporting tools. We're just baffled by why these off-the-shelf tools would even need to be certified. We've been voluntarily participating in syndromic surveillance in Missouri even though we weren't required to for the last four years. We've been able to do that with a very simple report that we are able to produce out of our EMR and upload. We're planning to move that over to an HL-7 format to meet the meaningful use requirements, using an interface engine, but we're just not sure how we would get that certified.

A third challenge is the clarification that we need to …. All of the software can meet of the requirements for meaningful use even those we're deferring in stage one. Just like we want to purchase servers two years before we would use them, we normally would not purchase software two years before. Hopefully, in two years, we're have more options on the market to even look at. So, it just doesn't make sense to us to have to purchase that now.

We are also concerned about the clarification that providers must use certified EHR technology in the way it is certified to accomplish that objective. You've heard that two or three times over the last few days. This would assume that best practices in EMR use is known and that it's … certified by the EMR vendor. We just don't believe that's true. We believe that best practice use of EMR systems is still very early and evolving. You even heard yesterday about some of the new functionality that's first generation that's being introduced by the vendors. It didn't even work when they got it out in the field to try it. So, forcing us to use the technology as certified seems like it's a little premature at this point.

We are fortunate at CMH that we are already at an advanced stage of implementation when our funding was announced. In that regard, we seem to be unusual among rural hospitals. I wanted to make sure I mentioned that. Most other, rural hospitals do not have the resources that we have at CMH. For those hospitals, the curve will be much, much steeper for them to meet the meaningful use requirements in time to get the incentive money or even to avoid the penalties. So, we would like to encourage ONC and CMS to be cognizant and sensitive to the needs of those rural hospitals that are way farther down on the curve, especially as you're looking at stage two and expanding the requirements for meaningful use.

To assure that we're meeting meaningful use, we are using standard project planning tools. We have a Validation Committee within the organization. We have measure sponsors who are asked to use the certification criteria to help model their presentations. We're using that to help document that we are in

compliance with each of the measures. One of the things that we are trying to do is preserve that documentation because we're unclear on what that documentation might need to look like in the future if we're audited. So, additional guidance on documentation requirements from CMS would be welcome.

As I've also mentioned, we're anxious about the quality reporting requirements in stage one. We welcome the e-specified measures. We've been trying to work on electronic extraction of quality measures for years, but these measures don't seem quite ready for prime time and as certainly best practices for the data collection of these measures is not yet know. So, we're hoping for flexibility there.

As far as communications, again, as other have noted, we'd like to have more lead time before we have to take things live between the time the vendor gets a program and we get it configured and implemented in our system. We think that takes at least 18 months to get some new functionality in the field. We're apprehensive about meeting stage two requirement while we're still implementing ICD-10 and 5010 and health reform.

My time's up. Thanks for the opportunity to be here today.

Judy Murphy – Aurora Healthcare – Vice President of Applications
Thank you. Whoa. She … for that one. I will turn to Rob for his comments.

Robert Anthony – CMS – Health Insurance Specialist
Actually, I do want to respond to a couple of things from the panel, but I do want to call attention to a couple of things of the program and what we do have available because there's a running theme about not being able to find the information that you want to find. I certainly understand that frustration. It's something that I take quite personally because if you haven't found that information, it means that I'm not doing my job to get it out to you.

I want to highlight some of the things that we do have available for people that many people may not know about. As Charles Christian said, there's a lot of misinformation out there. There are a lot of different sources of information. We've tried very hard to get out what we can to people as fast as possible

First of all, I do want to highlight that registration for the program opened on January 3rd. The question had come up in the last panel and the question's come up a couple of times about payment. I'm very happy to say that, for the Medicaid EHR Incentive Program, we've already made payments to providers in Kentucky and Oklahoma. So, already, that program has started. Payments are starting to go out for adoption, implement, and upgrade. April 11, providers can start to attest. As we get closer to that date, I'll highlight some of this. You're going to see more information that are going to answer some—specifically the questions that you had asked about. What are these things going to look like? What do we have to have in place?

Long before we hit this process, we started doing a lot of research about level of awareness, level of readiness. Mat Kendall at ONC had talked a little bit yesterday about national outreach. CMS really has focused on a local level. The earliest research we did showed that providers look to their professional journals, their association, their peers as the primary sources of information. That's how we've rolled out a lot of that information. We leveraged a lot of existing relationships with associations to try to get that information out through existing channels, like e-newsletters, Websites, Webinars, journals. You may have seen my name pop up from time to time in your professional association. You've certainly seen the names of some of my colleagues pop up from time to time to talk about that. It's the places we know people look for information. So, that's where we're trying to seed it. We know that's been fairly successful.

We've seen from the publication, *The Final Rule*—in July to January, we've seen a dramatic increase in the number of people who are aware of the program. I think the last estimate I have is that nine in ten

physicians and hospital exec's are aware of the Medicare and Medicaid EHR Incentive Programs. We've also been looking to those partner associations for feedback from their members to tell us essentially what's working and what isn't working. We've tried to use that to shape some of the resources that I'm about to talk about here.

The program being by its nature electronic, we've focused on trying to create an electronic repository of information. Most everything that I'm going to talk about here, you're going to find on our Website. It's www.cms.gov/ehrincentiveprograms. Some of you, I know, probably visit it on a daily basis. I do have the distinct impression that there are folks who probably are not getting their primary source of information from there. We understand that. I encourage you as a provider to go and take a look at that information because I don't know that everybody's aware of all of the tools that are there. I'm just going to give a brief overview here. There have been some written remarks that have gone around that will go a little more into depth about what's there.

At one point in time—I can't remember exactly who said it, but—somebody had said, "We really need a meaningful user dummies guide here." We've tried hard to put something like that together. Not only have we got a series of fact sheets that gives that overview of what meaningful use is and what the objectives are, we've put together what we call a Path to Payment for providers. It's a checklist of simple steps that lead up to registration and attestation. The thing that I'm not sure that everybody is aware of is in the very end of December, we published our Meaningful Use Specification Sheets. These really are, in some ways, the, "You don't need to read the entire rule. We're trying to aggregate everything that we have in one space." We've got a set for eligible professionals; we've got a set for eligible hospitals where we're covering every menu and core set in detail; how to meet the measure for those objectives, how to calculate the numerators and denominators; what qualifies as an exclusion. An in-depth definition of terms, there are a number of terms that have come up. What is a patient visit? What is a medication list? We try to define those. The requirements that you will actually go in and attest for, for each measure, there's been a lot of questions surrounding that. All of those are aggregated here.

We've put together some things, specifically for registration to help people through that process. We think that's paying off. We've got online eligibility tools, Web-based videos that walk people through, registration, user guides that give you a step-by-step. That's exactly what we plan to do for attestation. I'm hoping that's going to take some of the mystery out of that process for folks. We hear that again and again. How is this process going to work? What are we going to have to go through to do this? So, there'll be a Web-based video that walks people through that. There'll be worksheets for people to bring those numbers together and prepare ahead of time so they know what it is they're going to be looking at. There's going to be an interactive on-line tool where you'll be able to go through and plug in those numbers and see based on those numbers, "Would I successfully demonstrate meaningful use?" There'll be user guides that walk you through step-by-step on those things.

In addition, I heard a lot today that, "I submitted this question. I get an auto response. I'm not getting information back on that." Again, talk to me afterwards. I'm probably the person you want to talk to. We're working very hard. At this point, that's what was an auto response that basically said, "We're not able to respond through this channel." We've been staffed up. It does go to an incentive program information center. The fact of the matter is that while the FAQ's contain a great deal of information, while the information center is there to answer questions for people, sometimes, there isn't an official response for that question. As much as we'd like to be able to get back and say, "X equals y," x equals y has to go through the proper channels. That doesn't mean that I don't want to hear from you. I definitely want to hear from you because the more that I hear from you, the more I know this is the problem and this is question that we need to answer for you. Sometimes, getting that answer goes through a little bit of a process; we try to make that as fast as possible, but just wanted to let people know that, if you get a, "We don't have an answer for you right now," it does not mean that we won't have an answer for you ever.

I would encourage you to also take advantage of—we have some open door forums that we're going to do throughout 2011: specific topics; meaningful use; different areas. It's a chance to not only hear us

walk you through things; it's a chance to directly ask us some questions. Generally, you're going to get two or three, what we call, subject matter experts on the line. You'll be able to direct questions specifically to them and get some answers there as well. It is definitely our intention to make this as easy a process as we can for folks. It's a complex process. We know it is. It can't be reduced to a simple, "Check this box; check this box; check that," but as much as we can try to make that available, we definitely want to encourage everybody to take part in the incentive programs. So, the more feedback we get from you—I value what we've heard today—the more I can fold that into the type of tools that we develop in the future to make available for you.

So, thank you.

Judy Murphy – Aurora Healthcare – Vice President of Applications
Thanks, Rob. Did you also want to respond specifically to any of the testimony?

Robert Anthony – CMS – Health Insurance Specialist
Some of that back in there, I sympathize. I don't sleep much these days either. We are trying to get that information out as much as possible. I do understand the challenges that you face. I understand the frustrations. You're certainly not alone in that. It's the feedback that we've heard. The more that I hear that, the more that you're able to come to me, the more I'm able to look at that say, "Here's the tool that we have to develop for folks."

Judy Murphy – Aurora Healthcare – Vice President of Applications
For those in the room and/or on the phone who did not receive a copy of Rob's written testimony, I believe that will be posted on the Website as part of this hearing. So, everything that he talked about—I was glancing as you were going through—is certainly in there. One quick question I have, as moderator prerogative here, you talked about the Meaningful Use Specification Sheets. Do those go through the quality measures because every one of them mentioned the quality measures? Is there specificity there for the quality measures as well?

Robert Anthony – CMS – Health Insurance Specialist
These are specifically for the measures that pertain to the meaningful use objectives. The challenge sometimes for the CQM's is that they refer to areas that CMS hasn't specifically developed. So, those stand on their own. However, I'm happy, if you have specific questions about those CQM's, to put those through the process there as well. Often, we're drawing on some outside folks to help us answer those questions.

Judy Murphy – Aurora Healthcare – Vice President of Applications
With that, I will open it up to questions from the group here, the workgroup. Paul?

Paul Egerman – Software Entrepreneur
I just wanted to say to the people who testified, your information is very helpful and excellent. It is the case, I have to say, that there is the recurring theme about this communications issue. We hear it in all of the panels. I appreciate everything that you just said in terms of what you're doing. I mean, as I listen to this, it strikes me how complicated the whole program is. Not only is it complicated, you got CMS, you got ONC and we've got NIST involved. So, there is a lot of players, but part of what I'm seeing as a recurrent theme also is people having difficulty getting answers to very specific, technical questions.

I'm just speculating—my guess is they're having difficulty getting the answers because whoever they're asking within CMS doesn't know the answer and is having trouble finding the answer. So, that's speculation. That strikes me as where the challenge is concerned, the quality reports is an issue, but the other thing I've seen a little bit on some of these questions and answers is sometimes people get the answer and they just don't like it. The issue that Denni raised is a great issue because I was speaking to a vendor on the phone about this issue last week. He was very unhappy—this issue about that you have to have certified software—software has to be certified for all of the capabilities, even if you're not

implementing them right away. That is the answer. I personally think it's a reasonable answer actually, but I know there's disagreement about that.

But my question for you, Denni—I'm just curious—so, how are you going to handle it? I mean, you mentioned this as a challenge. I'm just curious, what are you going to do when you said that the CDA thing or something—?

Denni McColm – Citizens Memorial Hospital – CIO
Well, there are a couple different things. There's having to own all of the certified technology that are vendor-certified. We've been talking with them. Hopefully, they're going to certify some alternate version of this software. In one case, they certify one module software for the e-copy as one way to provide the e-copy whereas, for people who don't have that particular module, there's another way, but they only do that to give us flexibility, but now, it's part of the … certify complete EHR. So, hopefully, they're going to look at some options for that. I don't know how fast they'll be able to do that or if that will keep us from attesting for the 90 days. MEDITECH is our vendor.

Paul Egerman, - Software Entrepreneur
Okay.

Denni McColm – Citizens Memorial Hospital – CIO
Yes. They've been excellent to work with.

Then, the other is, for these interfaces that we could do—I want to make this point clear—we could do essentially these interfaces for free. We've been doing them already. We could do the immunization for free. We're probably just going to have to buck up and pay this $25,000 or $50,000 for the interfaces so that we can move on. I hate to have to do it. I even think MEDITECH feels bad about it, but there's not another choice.

Paul Egerman, Software Entrepreneur
Well, that's helpful. I'm also curious—something that you said, something similar to what Nancy said, but I get the sense that you want to attest by May 31st I think is what you said—

Denni McColm – Citizens Memorial Hospital – CIO
We'd like to.

Paul Egerman, Software Entrepreneur
—because there's some financial pressure from your CFO. So, I'm curious, how does that attestation process work? Is your Compliance Group involved? I mean, you got a CFO that says—and perhaps a significant sum of money resting on this. If I were a member of your board, how would I know for sure that you really did attest to something that you really accomplished?

Denni McColm – Citizens Memorial Hospital – CIO
We are using, similar to some other people—we call it the Validation Committee which is external to the group that's implementing and validating, going through the process of assuring that we're meeting these requirements. They are serving as sort of a jury to, "Here's how we think we meet the medication list requirement." We're using the certification criteria to guide us through that so that we're saying—here's basically screen shots to say, "Here's how we meet all these requirements. Here's our report that shows that we have this so-and-so percentage." So, we're nervous about it, but we're working our way— We've been doing it for months. We're working our way through each of the criteria. We have plans to be done by March 1st, which will give us still time to meet our 90 days in the fiscal period.

Paul Egerman, Software Entrepreneur
Who makes the final decision?

Denni McColm – Citizens Memorial Hospital – ClO
I will take it to the board before we attest. So, I will get administrative and then a board, but it's a small hospital, so I don't know how that works at other hospitals. I happen to have a direct line to the board.

Paul Egerman, Software Entrepreneur
I'm curious how it works at Aurora. How is that decision going to be made?

Nancy Vogt – Aurora Health Care – Deputy Chief Compliance Officer
Unfortunately, I'm where the buck stops. I will be probably the final adjudicator to decide whether or not I've been convinced that we meet the requirements. Being independent and the compliance department reporting up through our board, we feel that's the most objective internal group that we have. I will involve our internal auditors as well, but— We're basically creating a binder—even with all the questions I've submitted, all the research I've done, all the attorney advice that I've received—creating a binder to show our diligence in trying to get to the answers. Then, getting actual printouts out of the system to show that we can demonstrate some evidence of how we met the criteria.

Paul Egerman, Software Entrepreneur
Do you have any sense as to how much time, or what the cost is to determine whether or not you meet the criteria?

Nancy Vogt – Aurora Health Care – Deputy Chief Compliance Officer
Many hours; I mean I don't have a sense of the total cost. We have spent tens of thousands already on just external attorney fees. We don't have any internal counsel who have the IT background enough that they would be able to do a good job of opining on what they're reading. So, we have found some external counsel that have that background and have been at least helpful in confirming that they're reading it the same way that we're reading it.

Paul Egerman, Software Entrepreneur
Okay. That's very helpful. Thank you.

Judy Murphy – Aurora Healthcare – Vice President of Applications
David?

David Kates – Prematics, Inc. – Vice President Product Management
Thank you, panelists, for the testimony. I'm sympathetic to some of the concerns that you raised and there seems to be a fair amount of consistency, both in terms of communication pieces and the two topics that I keep on a recurring basis: the quality reporting measures and how those are going to be met, and the inconsistency between how products are certified. The packaging around that and the implementation and what modules you did and didn't purchase from them and how that aligns with what products you own and have implemented and how that applies in terms of certification.

Having said all that, I'll ask you to comment to make sure I've got that right. My question is somewhat unrelated and focused more on some of the partners you deal with, whether that's the health information exchanges in your communities and to what extent your deployment of health information technology is taking those into consideration. What your activities are there. Then, downstream, either to own physicians or community-based physicians, eligible providers, and how you're supporting their efforts at achieving meaningful use.

M
You mean, everybody?

David Kates – Prematics, Inc. – Vice President Product Management
Any and everybody; this is not directed at anybody in particular.

Charles Christian – Good Samaritan Hospital – CIO
The timer's off the wall. So, I don't have to worry about—

David Kates – Prematics, Inc. – Vice President Product Management
That's right. You can talk at the Southern pace now. So, you're good to go.

Charles Christian – Good Samaritan Hospital – CIO
Okay. Well, I think that I'll hit the HIE piece. In a community, we started having conversations with our physicians three years ago about if we—we created a thing called a community EMR. What does it need to look like? What does it need to contain? With their input, we designed what we are currently deploying to our own physicians and those physicians in the community who are still in private practice. Keep in mind that most of the physicians in Vincennes are in single or dual physician practices. We just acquired the largest physician practice, which was 17 physicians. So, we own the grand majority of the physician practices. They're part of our organization. Owning is not a good thing because you truly don't own—physician practices are like cats. Your dogs have owners. Cats have slaves. So, I think I've said that at lunch. So, we work together, trying to figure out what's the best way to serve our community.

Through that, the work that we're doing, since we're the sole provider of acute care in the five-county area, we are those experts that they come to for help. We were actually wiring our community through electronic medical records, both on the ambulatory and the acute care side, before all of this became the thing to do. Because it was the right thing to do for our community and how we take care of our patients because our patients got tired of repeating the same information every time and sometimes forgetting something because if they're historian, they're going to get it wrong. I depend upon my wife. She's a critical care nurse and so she is the historian for my entire family.

So, what we're doing, from a health information exchange, we're connected. We're moving all that information to Indianapolis. Our intent is also to use that as our disaster recovery if we have either a planned or unplanned downtime for our EMR in the community, that information is still accessible because it's sitting in a server registry.

David Kates – Prematics, Inc. – Vice President Product Management
We heard testimony throughout the day and yesterday, describing the hospital or an IDN as the local health information exchange. Do you characterize yourself as that and explicitly are creating health information exchange with those independent physicians?

Charles Christian – Good Samaritan Hospital – CIO
Yes, in a way, yes and no. What we've been doing is, because everything sits in my data center, we've been moving those information into the ambulatory EMR on a regular basis to make it available, but you have to keep in mind that there are limitations. In most of the physician practices, they're not used to having a one-to-many relationship. It's typically a one-to-one relationship. So, if you're a physician and you order something, and we do that test, we can put it right back in your EMR. If you're a physician and you're a referring physician, and you referred your patient to a specialist, and he's also in the EMR, you may not see that result when it comes back even though that you want to get a copy of. So, those are the things we're going to start depending upon the HIE in order to move that data where it needs to be rather than where we think it should go.

Joanne Sunquist – Hennepin County Medical Center – CIO
I'll respond to your questions as well. I co-chair the Minnesota HIE Work Group. Frankly, what that's going to look like in our state, we believe, is evolving quickly, even over the last six to nine months as we've seen the private marketplace really step up with the number of solutions, making us believe that what the state actually has to produce as maybe a separate HIE may or may not really exist. A good example of that, Minnesota is a very Epic-centric state; 75% of the people who live in Minnesota have a record in Epic. So, through Care Everywhere, we are all—most of us, except for the Mayo Clinic, which doesn't have Epic—planning to use Care Everywhere to meet stage one meaningful use HIE because

we're already just sharing the records—thousands of them—across the state all the time. We see the potential of that continuing to evolve. Therefore, what ultimately ends up as the state HIE, we're not sure what that's going to look like.

As far as supporting our eligible providers, at HCMC, we pretty much have a closed network of physicians. We implemented Epic in their practice. They're not our employees. We also implemented it in our continuum of care with the homeless shelter clinics, the mental health clinics, the county jail, across that whole continuum, which we have found to be extremely helpful in taking care of that real vulnerable population. Then, we are all working together on our meaningful use attestation. We've got one work group. While some folks are working more on the eligible professional side and some folks more on the eligible hospitals, we've got one team that's helping each other to achieve the same goals.

Judy Murphy – Aurora Healthcare – Vice President of Applications
Cris— Oh, was there going to be another?

Denni McColm – Citizens Memorial Hospital – CIO
….

David Kates – Prematics, Inc. – Vice President Product Management
Do you have anything to add? That'd be great.

Denni McColm – Citizens Memorial Hospital – CIO
Well, in our state, there's not much going on with HIE, but I have to say, with HIE, we are using Google Health PHR as our standard space connectivity for meaningful use requirement. We like that idea of a patient being able to combine their records—the health record bank concept, because it does eliminate the layers and layers and that the structure gives the patient control and no governance overhead, that sort of thing; but also, there's the other part of health information exchange that doesn't get much talk. As a paperless hospital, we just fight every day. It's the paper that goes in and out of our organization from related organizations. It's transactions that we're already doing that don't even require consent. Orders out; results in. Orders in; results out. Referrals out; reports in. So, we were working on something to do with that, but we just set it aside so we could ... meaningful use; but, we'll get back to it because that's the kind of exchange that's way, way more valuable to us in our environment.

Cris Ross – LabHub – CIO
Thanks for your testimony. I do want to go back to this issue about you said certified and the idea of vendors who certify as a whole product and where an entity once used modules of two completely certified as opposed to … certified. Because I think part of what we try to do in this committee is to challenge rule and we have a problem on the table here. So, I guess what I'm interested in finding out is whether there would be some other reasonable accommodation in that instance. I'm sitting here thinking to myself, "What's the worst possible thing that could happen if you took some of X and some of Y?" They're both fully certified. You put them together. Certainly, there's a buyer beware challenge that they may have interfaces that may not work, but that's your challenge—right?—rather than ONC.

So, my question is do you have some suggestions about substitutes? For example, if you were to do that and use products from two different tools or you wanted to modify them— If you were required, for example, to do an additional level of attestation rather than purchase a product, like you've talked about in some instances. I'm interested in hearing what recommendations you might have for us to modify that rule or to have some exception to it.

Denni McColm – Citizens Memorial Hospital – CIO
My understanding is that you, already, from the ONC and CMS side, made our miss and match our responsibility whether we do it with modules or we do it with completely EHR. The complete EHR … is sort of on top of that, but I already understood that we're responsible for making sure that the two products work together. So, I … thought of … another level of attestation would be another way to say,

"Yes, I have three modules of this and two modules of this. I'm responsible for making sure that they work together." That would be a lot better than forcing the vendors to go back and certify— I mean, it would be thousands of different ways that their software modules could be sold and licensed.

Charles Christian – Good Samaritan Hospital – CIO
The question is, for us a providers, when we go into attest to using certified EHR technology, how can we be assured that we are meeting that test and definition based upon the definition today. Because the last thing I want to do is put my organization at risk if we've gone through all the hoops and everybody is— we're in agreement as an organization that we need this, but then, five years later, when the auditor's coming in and saying, "No, not so much." Then, we're being prosecuted because we've taken monies from the federal government wrongfully even though it was innocently wrong. It's still wrongfully. How can we be assured that the definition that we're using—

And this goes back to, Robert, the comment I made about a lot of information from a lot of different places is that the clarification that we, as a provider, and as a community of professionals have received, it's still not clear. It's, "What does it mean to me?" We're a McKesson shop. Everything that we're going to be pumping out, we call an EMR, it came from McKesson. Well, I also have a orchard lab. Well, the orchard's already come in and said, "We don't have to be certified because—and the FAQ came out related to that. So, down the road a piece is a smaller facility that has pieces/parts from two different vendors. Both of these vendors have certified theirs as complete whole EMR's. Therefore, they do not have a certified EMR solution. They've got components of two different ones, and so that means, to them, that they're going to have to do site certification. They're going to do ... certification, which will add to their cost of implementation.

Nancy Vogt – Aurora Health Care – Deputy Chief Compliance Officer
Just want to add with whomever the preamble … certification rule, it seemed to say that the purpose of certification was to make sure there was no barrier to providers to achieve meaningful use. That the lack of technology didn't become a barrier, but it seemed to have morphed into something where it's driving or restricting how you become a meaningful user. I'm not sure that was originally the intent, but that's where—at least, how we're interpreting it—is actually driving how we become a meaningful user.

Paul Egerman – Software Entrepreneur
... I don't understand how it's restricted. Could you explain that?

Nancy Vogt – Aurora Health Care – Deputy Chief Compliance Officer
Well, I'll say, with our system— Cerner is our vendor. I would guess you couldn't find two, Cerner clients in the country that are running the same version of every product in the same way. So, it becomes very complex. With what we have, we could demonstrate meaningful use. We know we can demonstrate meaningful use for all the objectives with that we have. Again, when Cerner went for certification, they added on a couple products that we don't own. So, this seems to us to drive us to say, "We have to own those products even though we already have a solution."

W
... certify them. Why can't you certify what you're using as part of your attestation?

Nancy Vogt – Aurora Health Care – Deputy Chief Compliance Officer
We literally would have to go through the certification process.

Paul Egerman – Software Entrepreneur
I understand. You have a variation of what I understand Denni's problem to be. I'm actually familiar with Denni's problem because … talking to the—

Denni McColm – Citizens Memorial Hospital – CIO
… same problem. For Cerner, they don't own all the products that Cerner's certified in.

Paul Egerman – Software Entrepreneur
That's right.

Denni McColm – Citizens Memorial Hospital – CIO
The whole complete EHR. Self-attestation sounds a little onerous to me. One of the things—questions we've had about that is if we took like our interface engine, which is it's our certified EHR and our interface engine. We go to certify. They go, "We don't like the way you're meeting one of the eight privacy—" What the … are we going to do about it? Excuse me. I mean, what are we going to do about it because we didn't program either one of those? We're just using two products together. You see what I mean?

W
It implies that you have to search to fill the gap whether that means by acquiring a new tool or—

W
Let me try to clarify because I think I understand the situation. What they're saying is that they are capable of attesting to all of the meaningful use criteria. However, in doing that, they have used a variation of the products than are specifically identified as the vendors complete the EMR list. So, in either case, let's just pretend—MEDITECH, Cerner, whichever one—on their complete EMR list, they have six products or eight products. You're using five of those and not the sixth one or the seventh one. Yet, you're able to demonstrate meaningful use. So, that's really the juncture of the question is can you say you're … this certified EMR if you are not using every one of the products that are called out in that vendor's certification packet, if you will. Am I clear on that? Yes.

M
… permutations of that where—

Paul Egerman – Software Entrepreneur
What is it? ... in the MEDITECH issue; if MEDITECH got certified as a complete EHR system. So, the problem is, if you're using like 80% or 90% of MEDITECH, then you don't have a certified EHR system. You don't have it. So the solution is, in your case, is for MEDITECH to be able to be certified also for the modules that you do own. So, the question is if ... already certified on a complete EHR system, have they complete enough testing that they can say that they'll get the right certification stuff so the 80% you own, you're certified for. Now, you still have the gap that you're just not using MEDITECH for. So, you either have to buy that … from MEDITECH, or you have to get your other vendor to be certified, but that would be the solution to the problem.

Charles Christian – Good Samaritan Hospital – CIO
I don't disagree. However, the vendors are looking at how much it costs them to do certification. They're already putting out tens of thousands of dollars certifying a whole EHR. If you ask them to go back and … it for me, just for me, just for good ol' Good Samaritan Hospital, you're going to go out and spend hundreds of thousands of dollars, certifying each individual module so I can be a meaningful user.

Paul Egerman – Software Entrepreneur
That's true, although the question is if they already got themselves certified as a complete EHR, they've already passed the testing criteria. So, why isn't it an administrative function to make the specific modules also be—?

Charles Christian – Good Samaritan Hospital – CIO
You'd have to ask CCHIT, Drummonds and the other certifying bodies.

Paul Egerman – Software Entrepreneur

Yes, that's what we're doing. That's the question because I think that if would get them to do that, that would solve this problem. There's no reason for the vendors to go back and re-certify things that have already passed the testing. They already have the materials.

Charles Christian – Good Samaritan Hospital – CIO
We disagree.

Paul Egerman – Software Entrepreneur
Pardon me?

Denni McColm – Citizens Memorial Hospital – CIO
That might be another solution to the problem because, if every vendor now went back and had to go through the whole certification, we would clog up the system again. It would delay implementation, but if administratively, they could pull that off, that would be—

Paul Egerman – Software Entrepreneur
Would that solve the problem?

W
Yes.

Charles Christian – Good Samaritan Hospital – CIO
If through the certification process of being certified as a complete EHR, if the certification body also did the testing to say, "Each individual module is also certified; give us the Tinker Toys that we're using every day. We'll piece it together. We'll be responsible, making sure that it works." That's what we're doing.

Paul Egerman – Software Entrepreneur
That's right.

W
The question I keep hearing bounce back and forth is, does it imply then that you, as the provider, are responsible for deciding which Tinker Toys are going to be put together to get there, or does it imply you have to buy all six parts because listen to Paul's explanation. My concern is, did Cerner or MEDITECH or a customer, whomever, say, "It takes all these to get to meaningful use," or did they say, "It takes pieces and parts." You see what I'm saying? So, was it implied? Nancy, you know the Cerner thing. Was it implied that there were this many modules you must have all of them in order to get to certified?

Paul Egerman – Software Entrepreneur
In their cases, it was needed. They already had systems. The vendors went back and—

W
And added more.

Paul Egerman – Software Entrepreneur
No, the vendors went back and got their prior version certified.

M
But, it can go the other way.

Paul Egerman – Software Entrepreneur
... it could go the other way.

Denni McColm – Citizens Memorial Hospital – CIO

The question is, “Is that clear?” Some modules would be harder to teased apart than others, interfaces teased the parts. Those could easily be teased apart. So, there may be pieces of MEDITECH that need to stay together, but then, half of it maybe could be each module.

Cris Ross – LabHub – CIO
So, it seems to me as though we’re breaking to come to a solution sitting here, which is fine, but it’s an area for investigation. The thing about it is, it just strikes to me that the certification processes that we’re using in aggregation and in piece parts don’t reflect the reality about how software is typically constructed and integrated. Right? We have a certification process that’s at odds with the way that the software works. So, I think that what you put your finger on is important. Some of the ambulatory practices that we’re talking about earlier were looking at that same problem, but maybe we hadn’t confronted and weren’t as quite as articulate about it. That’s fine. I just think we need to give this feedback to ONC around further investigation.

Charles Christian – Good Samaritan Hospital – CIO
If you look at the certification process from a vendor’s perspective, they have to do this in order to continue to stay in business. So, in order to certify a complete EHR, they have to have modules that meet each one of the measures. If they didn’t have one, they went out and found them. They brought it in. They either bought the licenses or the rights to use, or they bought the companies to do that. So, what they have is they have solutions. McKesson’s solution is going to look different than Epic’s. It's going to look different than Cerner’s. It's going to look different than Eclipsys, which is now Allscripts. They’re all going to be different, so the way that they met those certifications and stuff. So, if you could wave your magic wand and say, “Okay, if you get the whole certified, then the parts are also certified,” would be wonderful, but the question about owning and having rights to use all the components of that certified, complete solution still won’t be addressed by the waving of that magic wand, I don’t believe.

Judy Murphy – Aurora Healthcare – Vice President of Applications
I do think we understand the situation. I agree with Cris. We do need to take a ... back. So, that being the case, Joe put his card down. Larry, you get the last question. We got about four minutes.

Larry Wolf – Kindred Healthcare – Senior Consulting Architect
Oh, boy. I had a whole bunch piled up here. Let see if I can cut to the chase on two.

So, I’ll let you guys pick and choose how you want to answer these. One is you’ve talked to some about care coordination and that we’ve been hearing a lot about how the hospitals are natural hubs within their local environment to do care coordination. So, perhaps to think specifically about who are your partners today that you’re sharing information with, and where do you feel there are gaps in where you’re sharing information in terms of actually achieving coordination as opposed to technically, I can send data to this other provider. The second one is, any closing thoughts as we look at meaningful use stage two and three, things that we ought to consider at the top of our list, either to make the process better or functional things that ought to be included?

Charles Christian – Good Samaritan Hospital – CIO
You mean everybody?

Larry Wolf – Kindred Healthcare – Senior Consulting Architect
Sure.

Charles Christian – Good Samaritan Hospital – CIO
Okay. For care coordination, I think that—us and hospitals—we sometimes believe that all healthcare revolves around us, which is absolutely incorrect. The grand majority of the care is ... patient happens in the physicians’ practice. However, what we are taking care of are the chronics, the people that require a significant amount of and add to the significant amount of costs of healthcare. The onus is upon all of us in healthcare to coordinate that care at different varieties and levels of care. Whether it’s that physician

who's sending the patient for us for surgery and treatment, and we're sending it back into the community for follow-up care, or if it's to an extended care facility, a nursing care facility, or a rehab facility. We have to do that.

In my market, we're doing a really good job, but it's mostly on paper. So, we have an initiative that we just—kicked off is not a good term. We're having discussion on how do we do this, not necessarily electronically, but appropriately. How do we make sure that the right people have the right information when they need that? That could be as much as a CT scan of the patient we're flying out to a trauma center because we can't handle the head injury. So, those are the things that we're working on, but it's sharing that information appropriately at the level of care that they need. It could be a Xerox copy of a discharged summary that we're putting on the patient's chest. They're going into the ambulance to St. Louis.

You ask about, "What can we do better?" Add some benefits for mental health because God knows I need some. I try to keep my sense of humor about this, but I've been in healthcare for a long time. The rate of change that we're currently seeing in healthcare, particularly around my desk is staggering. The thing that I'm reminded by my CEO is, "Chuck, you have another job other than just worrying about meaningful use," but I've been doing this for about 18 to 24 months. I've basically forgotten what that is. So, help us manage the rate of change is the only request I would have. Thank you.

Joanne Sunquist – Hennepin County Medical Center – CIO
Chuck mentioned ACL's earlier. In Minnesota, we were forced to put in place an ACL model sooner than we planned because the governor cut out the insurance plans for people in this state who made less than $8,000 a year. We were given a capitated dollar amount and said, "You have to figure out how to take care of these patients." That's an inventive that's going to be totally beyond meaningful use, but something that we're also all having to work on to figure out how to manage across that continuum of care and frankly not lose our shirts in the process.

As far as what can you do better for stage two and three, this latest discussion we've just had points this out. We need to focus on the end, not the means. Meaningful use should not be the full employment act for vendors and consultants and auditors and lawyers. That's what it could conceivably become if we make it so complicated and so onerous that's the only way you can achieve it. We need to keep our eye on that prize, which is the improvement of health outcomes and not get so tangled up in a lot of these logistics that are causing issues.

Denni McColm – Citizens Memorial Hospital – CIO
For stage two, I was glad to see bar-coding looks like it's going to be formatted—at the bedside looks like it's going to be on the list. That's one we thought was missing. It's so important that hospitals—it's been put aside at some hospitals doing the rest of meaningful use. Again, keep in mind the small rural hospitals that, if they don't make stage one, they're sure as heck not going to make stage two. So, before we ratchet up their requirements, keep them in mind.

Nancy Vogt – Aurora Health Care – Deputy Chief Compliance Officer
I'll just reiterate simplicity would be great. Compliance officers have a lot of other things to worry about. If we can get some clarification and some greater simplicity in the rules to come, that would serve us all well.

Larry Wolf – Kindred Healthcare – Senior Consulting Architect
Let me risk getting up another minute or two here.

Judy Murphy – Aurora Healthcare – Vice President of Applications
Oh, geez.

Larry Wolf – Kindred Healthcare – Senior Consulting Architect

So, sorry. Well, was it focused on ends rather than means? Is the end here to increase use of HIT because it enables a lot of things? In which case, maybe we should back-off from including specific quality measures, for example. Or is the end delivering the improved care, and we should be focused on alignment with every other quality program the government is putting forward and not be over-burdening you with additional QM's? How should we thinking about those ends?

Charles Christian – Good Samaritan Hospital – CIO
Well, from my perspective, we just re-worked our mission statement. What we do at the …, we take care of patients. Everything that I do, as part of my job, should be focused on the end result. It's not implementing technology, so making sure that we can appropriately apply the technology to make the care of higher quality and safer.

Denni McColm – Citizens Memorial Hospital – CIO
You mentioned aligning. Definitely align—I mean, quality measures. Quality is the outcome. All this other stuff is in-between, but aligning with the new, value-based purchasing and the core measures and now meaningful use measures so they could all be aligned. … specified that more of an end to me than—and then ... to make sure every patient gets it.

Joanne Sunquist – Hennepin County Medical Center – CIO
I would agree. It's more the latter than the former in terms of the end.

Judy Murphy – Aurora Healthcare – Vice President of Applications
I think that's a great way to end. HIT is the means to an end and not an end unto itself. Hopefully, everybody in this room is recognizing that. I thank the panel very much, great comments. Thank you.

Elizabeth Johnson – Tenet Healthcare – VP Applied Clinical Informatics
What we'll do, for the sake of time, is bring the last panel immediately rather than taking a big break here so that we can sure to stay on time for the end of the day. So, if the four panelists could come forward, that would be great. Thanks, guys.

In deference to time, we will start pretty quickly. One of the things I want to remind the persons that are in the room and on the phone is our original schedule changed slightly. So, we will be ending the work group panel at 4:30, do some summary comments, and then go to questions, which is a little earlier than was originally planned. I just want to bring that to your attention so if you want to ask a question, you're here at the right time.

With that, as a follow-on to the last panel—and I'm sure with new information and reemphasis on some of the information that's been shared with us—we have a second panel of Early Adopters Seeking Meaningful Use from the hospitals. We have a very distinguished panel. That would be Brian Jacobs from the Children's National Medical Center; Rush Branzell from Poudre Valley in Colorado; and Joel Berman from Concord in New Hampshire; and Lynn Bowes from Intermountain, and Robert Anthony will be again moderating. I believe that Josie has joined us, also along with Joel to answer and give us additional testimony

Welcome all of you. We'll begin. Again, we'll remind you. We'll stay within the five-minutes. Then, we'll open it up to questions so that we can add to the information that we've been gleaning all day long.

Brian?

Brian Jacobs – Children's National Medical Center – Chief Medical Information Officer
Thank for having me this afternoon. I'm Brian Jacobs, the Chief Medical Information Officer, right up the street here at Children's National Medical Center. I also wear the hat there of the Executive Director of the Children's IQ Network, which is a health information exchange. I'm a critical care physician. I also sit

on the panels at Maryland and D.C. health information exchanges. I'm current-year chairman of the HIMSS/AMDIS Physician Community organization.

Children's National is a tertiary pediatric care institution with around 350,000 visits a year. We've been involved in electronic health record initiatives for the last six years, both in the hospital or ambulatory clinics, and then, in our region in Virginia, D.C., and Maryland in community providers who are part of the Children's IQ Network there. In the hospital setting, we've been quite successful in the widespread adoption of CPOE, electronic nursing and physician documentation, e-prescribing, and a lot of seamless interoperability between our radiology, lab, pharmacy, systems and so forth. We generate over 40,000 orders a week, about 700 electronic physician documents, every day. We're clearly seeing value from that investment and have noted some positive impact in many areas, including the common things like implementation of complete unambiguous patient care orders, very good decision support to improve medication safety and physician prescribing behavior. Consistency in care delivery with care sets for different conditions and legible physician and nursing progress notes accessible anywhere and anytime.

But really some of our more powerful improvements on the inpatient side have been associated with the aggregation of that electronic health record data, finding improvement opportunities and making the positive impact by understanding those opportunities. So, a few examples of that are a program that we've put in place to automate the detection of adverse events through data from our electronic health record, improving pain assessment and treatment in children and even understanding regional health issues, such as obesity in our D.C. metropolitan region here.

Then, in 2008 we launched the Children's IQ Network, which is a pediatric-specific health information exchange, with the primary goal of that network to improve the quality of healthcare delivery for children by subsidizing the electronic health record purchases for community doc and facilitating data exchange between the primary care doc, the hospital, commercial labs and other stakeholders. That initiative has been very successful in transitioning many providers from paper to the electronic health record. This year we're actually going to be going live with our network's data exchange throughout the region.

From a standpoint of challenges, I'd really like to focus on three specific areas: The first being cost and I know you've heard a lot about that over the last couple of days, but really one of the largest barriers to progress with adoption that we're finding is total cost of ownership. So hardware, licensing fees, implementation and so forth, regardless whether you're a one doc practice looking at a $20,000 implementation cost or a hospital looking at $50 million plus cost for a large scale system. Although subsidization and the promise of meaningful use incentive payments does help, we are routinely seeing practices in the community delay adoption because of those costs there, so we need to do something about this. We need to do something about this. Total cost of ownership needs to be reduced, I think, if we're going to expect our hospitals and primary care providers to move forward in the effective adoption of electronic health records.

The second challenge for us is our Medicaid providers in D.C., Maryland and Virginia, who are really using their electronic health records in what we consider a meaningful way, are not currently able to register or attest to meaningful use. These states that we work with—D.C., Maryland and Virginia—and many others in the country as well are not ready with their administrative systems and their attestation systems that will allow for registration and payment distribution. It's been quite frustrating for us. We're ready to go in the hospital, we're ready to go in the community, but yet the states are not able to even allow us to do the registration process right now and many are talking about late this year or even into 2012 to simply register for meaningful use incentive payments. In addition, many providers who are using EHRs in a meaningful way are working with vendor-based platforms that have not been meaningful use certified. Reflecting back to the last hour's discussion a lot of this requires laborious and expensive upgrades with downtimes associated with them and a lot of resource expenditure on the part of the small practice or even in part of the hospital.

We have three great EMR systems in our Children's IQ Network and none of them are meaningful use certified. They all have CCHIT certification, but they're not meaningful use certified. They all require upgrades, despite the fact that if you went to any of these providers and asked them they would say we are using our electronic health records in meaningful ways there.

I appreciate, Robert, your comments earlier clarifying all the resources available on the Web and elsewhere, but our providers, both in the hospital and in the community are really confused about meaningful use, despite those resources. It's complex, it's not intuitive; we employ a full-time analyst just to help understand this for our organization and we meet in a multi-disciplinary team every single week to try to go through and work through some of the details and I think we've heard that from other organizations as well. I'm confused, I think it's complex, I don't think it needs to be intuitive and I think that the meaningful use materials need to be made much more intuitive and much more simple so that people can move through this and not feel so confused about this.

The other thing I wanted to comment about in regards to meaningful use reporting tools is that although they're able to generate data that's compliant with CMS, they're not always meaningful. So, I'll give you an example. One of the reports that our vendors have provided to us indicate the number of patients who died and those who have the reason for their death recorded in the medical record. It really doesn't allow the organization to determine the things that we really care about: what are the factors associated with death, what are the opportunities to reduce hospital mortality? So, really improving the quality of care delivery requires the ability to query and analyze electronic health record data, but also to identify those opportunities for improvement and implement improvement measures.

We need our vendors to supply our clients with reliable, intuitive and truly meaningful reporting analytics and not just products that are going to meet the letter of the stage one meaningful use requirements as they currently do.

Elizabeth Johnson – Tenet Healthcare – VP Applied Clinical Informatics
I'm sorry to cut you off, but we've reached our time limit and I know you're going to have much more to add to this when we get to the questions, so with deference to that, one last comment and then we'll move to Russ.

Brian Jacobs – Children's National Medical Center – Chief Medical Information Officer
Well, let me stop there and just thank the panel for allowing me to speak with you all today.

Elizabeth Johnson – Tenet Healthcare – VP Applied Clinical Informatics
Thank you so much. Russ?

Russ Branzell – Poudre Valley Health System – CIO
Good afternoon and thank you for this opportunity. My name is Russ Branzell. I'm the CIO of Poudre Valley Health System. I'm also the CEO of Innovation Enterprises, our for-profit company that's providing IT services to over 300 physicians and healthcare organizations, just due to the demand for those services that are occurring. Those are independent organizations. Additionally, I serve as the Chairman for the Colorado and the national communities for StateNet, which is a collaboration of CIOs trying to work across the country to aid in adoption of health IT; that's over 1,400 CIOs trying to work collaboratively across the entire country. If that wasn't enough, last week I was appointed the Interim President and CEO of our medical group, over 200 employed positions. Somehow now, I'm both the customer and the provider of health IT in organizations. A little bit of a chaotic world, I live in.

PVHS has been on a patient quality, safety and efficiency journey for over a decade and supported by the deployment of advanced HIT technology solutions and process improvements. We don't necessarily consider ourselves early adopters, in that we've had advanced clinicals for some time—EMR, BMB, CPOE—for a few years; rather, that we did it for the right reasons, for patient care. With the finalization of our CPOE implementation this year by mid-2011 in numerous software releases, I stress numerous

software releases, to get to meaningful use we should be prepared for attestation by late 2011. We do consider this a fairly significant success in our organization and really in support of doing the right things for many years for patient care and patient improvement.

The only real challenges and barriers that we've experience has actually been from outside of our organization and outside of our physician partners and our community, those being some vague and ambiguous direction and timelines from ONC and CMS, specifically related to standards and metrics. This includes supposed clarifications and FAQs that serve no improvement based on rational patient care, patient safety or industry efficiencies. Examples, really a testament to what was said on the previous panel, a recent supposed clarification of a complete EMR versus modular will result in organizations, including ours, in some cases failing to meet meaningful use and massive, unnecessary expenses for their organizations.

The lowering of the requirements for stage one, although appropriate for the industry, was actually a disappointment for our organization. We hope that the existing standards that we have in place now for stage one will actually be reinforced with full implementation requirements for stage two and three. Living in a hybrid world is absolutely more dangerous than paper; we absolutely want to get to a full electronic requirements for not only ourselves, but everyone in our communities. Then, missing standards as well, such as BMB, which as a real and significant improvement in quality and safety was an obvious omission of the first stage one requirements, and which many hospitals actually have in place and we should put out for almost all of our hospitals.

The outcomes and results during this period of major change are significant and directly in sync with the meaningful use goals that we've done in our organization. We would caution, though, that the results are not always directly related to the technology, or rather the process redesign and the efficiency work completed by front-end clinical staff, then reinforced by the use of appropriate technology and software. Simply put, it's not about the technology. Example: Nursing documentation methodology changes to streamline documentation required significant process work 18 months prior to the technology going in place, before even starting system redesign, build and deployment. Surprises: Really, not much, rather than that we've seen a massive increase of interest for our EMR hosted solutions by independent physicians and smaller community and critical access hospitals that can't afford to do this themselves.

The issue of getting them on board is not an issue of resource availability, but rather resource affordability. My personal experience with ONC has been one that's been pleasant and productive. Working with Doctors Blumenthal, Mostashari, and Hunt has been both very collaborative and open and they have been very open to discussion and immediate feedback when we've provided clarification questions.

My participation in the stage two Metrics Workgroup was both satisfying and open. I do not have any firsthand experience necessarily with CMS, but rather from the entire industry workgroup that I work with and feedback from them there is definitely considerable frustration and confusion from the communication or lack of clarification between the two organizations, especially when guidance seems to conflict. I am extremely worried about the smaller, rural and critical access hospitals and physician offices that are being promised support and assistance from RECs with no real long-term support or integration sustainability strategy. We have been contacted now just recently by ten hospitals from three state area asking for hosting assistance because they cannot get it in their states.

Finally, I would like to say thank you very much to the panel here or to the group here for your hard work. I know from first-hand experience how difficult it is and I know you're all volunteers and we greatly appreciate you putting in this much work. So, with that, thank you very much.

Elizabeth Johnson – Tenet Healthcare – VP Applied Clinical Informatics
Thank you, Russ. Joel and Josie?

Joel Berman – Concord Hospital – Chief Medical Informatics Officer

Thanks. My name is Joel Berman. I'm the Chief Medical Information Officer for Concord Hospital, a 230-bed hospital in New Hampshire's capital, which coincidentally is right in the path of the storm that's descending. Washington, D.C. is going to follow us back and my suspicion is Josie will be here for more than one day.

In my written testimony, I provided some information that supports our contention that Concord Hospital, like many of the organizations here is an advanced stage of use in our ability to utilize clinical information systems to improve quality in patient safety. One of the reasons is we've paid for our competencies. On a percentage basis our investment in IT is 25% greater than the national median of hospitals applying for most wired status. We've been proactive in planning for HITECH. Josie, my colleague to my left, the Director of Clinical Information Systems, was very proactive. Within weeks after the signing of the HITECH Act, she oversaw the creation of a ten-step strategic plan that our inpatient vendor circulated as a model for their other U.S. clients.

As a result, Concord Hospital is well positioned to achieve EP attestation in 2011. But we've postponed seeking hospital eligibility until 2012 because we believe we won't be able to achieve some of the inpatient measures in 2011 in a sufficiently meaningful way, one that advances quality inpatient safety. Here's why. Our outpatient EHR, like most, is mature, it's a wraparound product, it's been on the market for years. Our inpatient clinical applications, like most, as you've heard today, are modular, relatively immature and less than completely integrated. This is not the fault of our vendor. It's the norm for many U.S. hospitals, as you've heard and I'm sure you know. Very few have the luxury of an integrated system that's built on a common application framework.

We're delighted that HITECH is incentivizing our vendor to create additional modules to allow us to meet the measures, but HITECH's time frame is unrealistically compressed, again, as you've heard from others all through the day. It doesn't give vendors adequate time to develop and refine their products nor us, the end users, sufficient time to implement and adapt these products to our local environment because, as we know, none of these products are plug-and-play.

The inpatient problem list measures highlight this issue. Our vendor solution that will be available to us within a few months allows providers to push structure diagnoses in CPOE to our new longitudinal heal repository, but this application doesn't interoperate with our outpatient EHR, which contains the medical records of about 85% of the residents in our catchment area. Our outpatient experience has taught us that to be meaningful, a longitudinal problem list requires ongoing maintenance. We are in the process of achieving this in the outpatient arena where providers lives in their EHR all day, but it's a daunting sociologic challenge in the inpatient environment, where there is no obvious longitudinal owner of a patient's clinical list.

We also know from experience that inaccurate problems lists can be as bad or sometimes worse than no structured list. Not only do they generate inaccurate point of care prompts, but they can demoralize and disinvest providers with their unacceptably low signal-to-noise ratio. Physician engagement is a sine qua non for the success of initiatives as transformational as HITECH. We believe we can meet the letter of the problem list requirement in 2011. It's not very hard to push one problem to 80% of patients, but we will not have met the spirit of the requirements. So, instead we chose to pilot a collaborative initiative between our inpatient and outpatient vendors that will import our maintained outpatient problem list to serve as the foundation for our inpatient list. The timeline for the development of this interoperability will necessarily push our stage one reporting period well into 2012. While we want HITECH dollars, we don't want them badly enough to sacrifice quality for expediency.

In conclusion, we believe that if Concord Hospital can't achieve attestation in 2011 in a way that uses our inpatient information systems meaningfully, few other hospitals of equivalent size and resources will be able to do so. Thanks for your attention and Josie and I look forward to your questions.

Elizabeth Johnson – Tenet Healthcare – VP Applied Clinical Informatics
Thank you. Len?

Len Bowes – Intermountain Healthcare – Physician and Senior Medical Informaticist
Thanks to the committee members and chairpersons for inviting me. My name is Len Bowes and I'm a Physician and Medical Informaticist for Intermountain Healthcare. Intermountain is a not-for-profit, community-based, integrated healthcare delivery system headquartered in Salt Lake City, Utah. It operates 23 hospitals, more than 150 clinics and other healthcare services. Intermountain employs approximately 800 physicians and has another 2,500 affiliated physicians who practice at our facilities. I spent the past 16 years leading and collaborating with Intermountain Healthcare teams to develop and roll out our own homegrown EHR systems. I hope to illustrate some of the challenges that meaningful use brings to our enterprise.

Fully 50% to 100% of my time in the last 18 months has been consumed with studying, interpreting and estimating impact to the rules and regulations for EHR certification and attainment of meaningful use for our enterprise. I advise our Chief Information Officer, Marc Probst; our Chief Medical Information Officer, Stan Huff as well as our Chief Medical Officer and Chief Nursing Officer on ARRA HITECH issues. I was tasked to oversee the gap analysis between the HITECH EHR certification requirements and our self-developed EHR as well as the gap analysis between meaningful use workflow requirements and our current EHR ambulatory and hospital workflows. Identifying gaps in our EHR functionality required assembling and repetitive consulting with ten teams numbering over a hundred specialists from our EHR development and implementation groups.

We have two legacy systems: one for hospitals and one for ambulatory users. Twenty-two analysts reviewed 46 EHR certification criteria to determine the gaps. We need 25 of the 46 EHR requirements, but must enhance 17 modules and build four new modules or functions. Identifying meaningful use workflow has been a challenge as well. The results of our workflow gap analysis showed that not one hospital or a single physician met all of the stage one meaningful use workflow requirements. Some workflows were met by some of the hospitals and physicians. There are 14 hospital and 15 ambulatory workflows that will need to be enhanced or modified. There are an additional ten that pose great challenges.

Our final gap analysis showed that we will need to spend approximately $8 million to $10 million over our projected budget to fill our EHR functional gaps and to roll out our system to our eligible professionals and hospitals. Other costs to Intermountain include postponement of other non-HITECH projects. We are increasing staff in our EHR development teams and our implementation and training teams. However, it takes approximately six months to get analysis and programmers up to speed on our systems to become proficient and takes time away from current staff to do the training. It remains unclear whether we can hire and train new staff in time to meet EHR development goals and then train users to meet meaningful use.

Another great challenge to meet meaningful use in our hospitals and clinics is the ability to change clinician workflows. Transitioning clinicians, and especially physicians, to our EHR is a time-consuming process. Like most other institutions, we have not had success with big bang EHR transitions. Our EHR implementation strategy has been gradual. Changing just one workflow can impact a clinician significantly and, if done wrong impact patient safety. For example, we implemented a clinical summary and a reminder model to our ambulatory clinicians, which took three years to roll out to our 800 physicians and their staff. Transitioning our MDs from dictation to electronic charting was also a three-year process. EHR development and clinician workload change is challenging and it is slow. We must get it right the first time to ensure physician efficiency and patient safety. Realistically, while our goal is to reach meaningful use for all hospitals and physicians, we are not certain that all our hospitals and physicians will achieve meaningful use for stage one in time to gain the maximum incentives.

In summary, we have a huge and seemingly insurmountable challenge in front of us as things stand today. How could CMS and ONC help institutions like Intermountain? It would be great to support gradual adoption of high impact functionality in stage two and three, such as quality measures, full CPOE med reconciliation; increase the time frame to accomplish meaningful use. For example, allow a Medicare meaningful use timeline that mimics the Medicaid timeline allowing a later start without losing incentives; only require certification of functions planned for and used to demonstrate meaningful use; CMS and ONC should harmonize quality measures and meaningful use measures required by their various programs and other national regulatory programs.

There should be agreement on measures for HITECH, Joint Commission, PQRI, Medical Home, etc. Finally, we need a finalized, consistent long-term guidance, a meaningful use strategy roadmap from CMS ONC through 217. It would also be helpful if ONC and CMS incorporated as much feedback as possible from the CIO community, from hospitals and eligible professionals so that real world implementation experience is appropriately considered and reflected by ONC and CMS.

I thank you very much for this opportunity.

Elizabeth Johnson – Tenet Healthcare – VP Applied Clinical Informatics
Rob, before we open it up to our colleagues around the table, do you have any reaction to the comments that have been so far?

Robert Anthony – CMS – Health Insurance Specialist
Just a couple of quick comments: First of all, thank you, everybody, for bringing those challenges and barriers here. I think you're echoing the frustration we've heard on some of these other things and certainly heard loud and clear. Some of these I can't really speak to because they're Standards issues and they don't really fall under CMS's purview; they're more of an ONC thing.

I wish we could have somebody here to sort of address some of those things because I think that is the gap between what you are able to achieve as far as the measure versus where you fall short because of the standard that's been established. I think it's certainly something we have to look at as we go into stage two and stage three. But I just wanted to say thank you for highlighting those areas and certainly on the communication side of things, we've definitely heard repeatedly here that we need some things that are a little bit more basic, intuitive, easy to follow for folks.

Elizabeth Johnson – Tenet Healthcare – VP Applied Clinical Informatics
As the cards start to go up, that's a hint for my colleagues here, let me just ask a couple of questions of you. Each of you will start, Brian go down, would you be clear with us on when you plan to attest and who in your organization is responsible for actually signing, submitting and so on attestation? Brian, we'll start with you.

Brian Jacobs – Children's National Medical Center – Chief Medical Information Officer
Yes, our intention was to attest this year, do a data collection period January through March and attest in April. Because of the state Medicaid registration process not being in place in any of the three states that we can attest to, we're going to have to put that off. We do have a multi-disciplinary team that includes Compliance, CFO, myself, analysts, various physician and nursing leaders in the organization that meet regularly and everything is funneling up to them with approval by the board. So, we're ready to register and attest, we just need the Website to cooperate.

Elizabeth Johnson – Tenet Healthcare – VP Applied Clinical Informatics
Right. Russ?

Russ Branzell – Poudre Valley Health System – CIO
For our hospitals and most of our physicians we plan to attest near the end of the year, after taking several upgrades from the vendors and a little bit of work that still needs to be done. But, for the most

part, we're going to do it via committee, similar to the way that Brian was describing that. We have a committee that will do that. I'm sure somewhere along the line I'll have to sign something and put my name to it. I'm just assuming; that comes with the job CIO.

Elizabeth Johnson – Tenet Healthcare – VP Applied Clinical Informatics
So, it would be you, okay.

Russ Branzell – Poudre Valley Health System – CIO
Yes, kind of Career Is Over is what CIO stands for.

Elizabeth Johnson – Tenet Healthcare – VP Applied Clinical Informatics
You seem to have four jobs, I think it's okay. Joel and Josie, what is your plan?

Josie Bendiks – Concord Hospital – Director, Clinical Information Systems
As Joel stated, we don't plan to attest for the inpatient side in 2011, but hope to be ready probably early summer of 2012. On the eligible provider side we're hoping to attest for roughly 70% of our employed providers 90-day period starting July 1st through the end of September.

Elizabeth Johnson – Tenet Healthcare – VP Applied Clinical Informatics
And who is responsible for attestation?

Josie Bendiks – Concord Hospital – Director, Clinical Information Systems
Like the other gentleman here, we have a governance body, who has been following our efforts all along the way and I think in the end it will be our CFO who does the final.

Elizabeth Johnson – Tenet Healthcare – VP Applied Clinical Informatics
CFO, interesting.

Josie Bendiks – Concord Hospital – Director, Clinical Information Systems
But we haven't really made that determination.

Elizabeth Johnson – Tenet Healthcare – VP Applied Clinical Informatics
Okay. Len, as you speak about it, one of the things we've not had the opportunity here yet, we know that the self-certification process is still not quite developed or not quite finished, but I believe that will be a self-certifying situation for you. Can you talk about that, too?

Len Bowes – Intermountain Healthcare – Physician and Senior Medical Informaticist
Yes, we're planning to site certify and actually we have to self-certify both our ambulatory and our inpatient system and one of the concerns—I didn't mention it, it's in my written testimony—but the self-certification options for ambulatory came out late very recently and the site certification for hospitals also is relatively late, but anyway we need to site certify the whole kit and caboodle, basically, and it won't be until 2012 for our EPs and 2013 for our hospitals. I mean that's when we're going to attempt to meet meaningful use.

Elizabeth Johnson – Tenet Healthcare – VP Applied Clinical Informatics
Got you. Oh, you're going to try to attest, so then you'll have your self-certification, site certification, prior to that?

Len Bowes – Intermountain Healthcare – Physician and Senior Medical Informaticist
Yes.

Elizabeth Johnson – Tenet Healthcare – VP Applied Clinical Informatics
Great, thank you. Larry, did you have a question for the panel?

Larry Wolf – Kindred Healthcare – Senior Consulting Architect
Yes, I'm going to ask the question I've been asking all day, which is if you'd talk a little bit about care coordination. We've heard, certainly through the morning, that hospitals, hospital systems, tend to be natural hubs. They've historically had more infrastructure and have been able to support some level of information exchange and with the disincentives for readmissions there's certainly a lot of pressure to do a better job of coordinating care. What do you see as the challenges around improving care coordination and the things that would be more helpful in information systems than you've got today? Go for it.

Len Bowes – Intermountain Healthcare – Physician and Senior Medical Informaticist
One of the advantages of being an integrated delivery network, we have our own insurance company and so our incentive for 40 years, really, has been to identify ways we can take better care of our patients, improve quality, improve efficiency, decrease costs. We were one of the first institutions that identified adverse stroke events using our electronic medical record. If you remember, we also identified the improved quality and decreased cost, this was back in the 80s, in our health system.

So, we have going on to continuity of care we've known that if you have to readmit a patient our insurance company is going to pay more for the care of that patient, so we have processes in place. We use our electronic health record, we identify our chronic problems on our coded problem list, we know the medications, we know the problems of those chronic patients and we're incentivized to care for them as best we can. I think it's going to be more of a challenge once we get outside of our network, but we do have a lot of great data on our insured and patients that do visit our institutions. I can give you other examples, but I want to give some of these folks a chance here.

Joel Berman – Concord Hospital – Chief Medical Informatics Officer
Well, at Concord Hospital, one of our strategic priorities is to focus on the 30-day readmission rate. We're about to embark on an ARC grant that utilizes the Re-engineering Discharge model from Boston University Medical Center. Dr. Brian Jack has championed that. It's an approach that was published in the *Annals of Internal Medicine* within the last year that basically is a checklist approach to how to decrease the risk of re-admissions. They're very discrete, understandable, intuitive steps. There are about 11 or 12. There are a number of different models. BOOST is another model that's used by the Hospitalist Association. But it basically comes down to people and processes. There are the usual suspects, I think everybody is aware, of identifying the patients who are at highest risk, patients who have been readmitted or had been admitted to the hospital within the last six months, patients who had certain diagnoses.

We need to identify those patients early on, we need to assess their resources, we need to make sure their medication and follow-up list is clearly written at an appropriate age related level. We need to format it in a way that is understandable to patients as opposed to providers, and that's a challenge. That's one of the challenges that we would see information technology ameliorating and, again, Brian Jack has a model for doing that that actually extracts EMR information and formats it in a tabular format that's easier for patients to understand.

It also includes patient verification by teach-back to guarantee that they understand what the instructions have been, a phone call to the office for an appointment within so many days, a call from the office to the patient to verify that they have the appointment, they have the transportation, they have the money to pick up the prescriptions; none of this is a mystery. We all know that these are the steps that reduce readmission and we have good evidence now that if we employ these steps that we can achieve a lower rate.

Now, what role does technology play in that? It can be facilitated, certainly, but it's not catalytic and this is about people, it's about human resources, it's about champions, it's about coordination, and it's about doing it consistently because like so many other core measures the bundle is what's important and what really works is if you do all these things. And if you don't do one or two your chances of success are

significantly less. So, this is really a human challenge, a sociologic challenge, it's not a technological challenge.

Russ Branzell – Poudre Valley Health System – CIO
I think there's a big different between a hospital and a health system and I think that's becoming very clear in our nation's entire health system right now and that is those that are focused on being a health system are out there try to work with all the partners in a community to try to bring this care coordination together. I don't think we're any different than others in the sense that people are looking at us to provide that leadership. We've done that for years with exchange of information in traditional ways of interfacing lab results, but now a vast majority of our independent private physicians have turned to us and just said, for all intents and purposes, thrown their hands up and said IT is your expertise, why don't you help us?

So most of our private physicians in our community and other players have turned to us to be their service providers and I think that's a little bit different than in most communities and maybe it's just the uniqueness of our size, but almost all of our physicians will be on one EMR, both employed and private, will be on one hosted system where they can exchange that information, they can do referrals, they can see one medical record, still maintain their privacy where appropriate, but, more importantly, make sure the patient care is happening.

Then it's our job to make sure that the hospital systems integrate with that ambulatory environment. Then, taking it to the next level we're providing the leadership in Northern Colorado to be the first to come out and pilot with our state exchange to be the pilot for that in our community; that way, taking the burden off of providers and hospitals and necessarily taking that one feed to the state out of a whole community.

Brian Jacobs – Children's National Medical Center – Chief Medical Information Officer
I would agree with everything that's been said so far and I think whether you're talking about a health system where the patient is bouncing around to different venues within the system, or even a region of disparate healthcare providers where you're going primary care, emergency department, schools in the case of school nurses and children, inpatient environment and so forth, the care coordination is key to good accountable care organizations there.

Really, I think where HIE comes in play here is all about the data, having accurate and reliable data at the fingertips of the decision-maker, whether it's the nurse or the physician who is providing that care is really critical to affective, accountable care organizations. We know there's waste; we all deal with waste all the time in our organizations: redundant lab testing, radiology testing, over-prescribing, readmissions to the hospital, it's there.

The problem today is that we get paid for that waste. When we re-order tests and when we readmit to the hospital, at least in the pediatric environment, we get paid for that, so it's the right thing to do to eliminate that waste and the accountable care model is the way to go with that, but it really is reliant on having that good data at your fingertips when you're making that decision, rather than just caring for a patient in a vacuum.

Larry Wolf – Kindred Healthcare – Senior Consulting Architect
So, one of the things I notice you didn't mention, so I'll put it out there for comment, is about a third of Medicare discharges from hospitals go to some other provider setting. They go to home health, they go to skilled nursing facilities, they go to inpatient rehab, long-term acute care hospitals; what's been your experience of connecting with those other settings and including them in this thinking about coordinating care.

Len Bowes – Intermountain Healthcare – Physician and Senior Medical Informaticist
I think that what we have had experience with is giving a read only copy of our electronic health record to, we now have over a thousand locations that we've rolled that out to. We began that rollout in 2002. Then in 2007 we began to use a company, HIE company to send data to other local affiliates. But, to be

honest, we haven't gone to identified nursing homes and some extended care facilities. I think that is an opportunity or an area of opportunity that we can still go to.

However, what we wanted to do was rollout to our affiliates. We've got 2,500 affiliate MDs and we gave them free access to any of the documentation, problem lists, medications, clinical summaries; it was actually a read-only version of our electronic health records, so we've been doing that now for nine years and that's been very helpful. There isn't any reason that we couldn't rollout as well to some of those other locations that you mentioned. But I think that moving to the HIE, moving and using and HIE so you have two-way travel is really where we want to go.

Joel Berman – Concord Hospital – Chief Medical Informatics Officer
At Concord we don't have a great solution to this. We use our outpatient EMR as our platform for creating a discharge document because, as I mentioned in my testimony, that's our gold standard for our clinical list; that's where we put our energy, that's where we have our ownership and we use that to populate a discharge document that is actually paper and we send that with the patient and it has the essential elements that are important for the receiving institution. They receive the information consistently, but on the transfer back to the hospital there's a great deal of variability in the quality of the information we get.

Russ Branzell – Poudre Valley Health System – CIO
We went through a formal process a couple of years ago as part of our data mapping and got business associates agreements with all of the secondary levels of care and they are now trusted users of our system and we have our system actually loaded on most of their computer systems, similar to what Len was talking about and that we can make sure that we can get directly into the system. A few of them have chosen to actually want direct interfaces. We've done mostly outbound only. They do not want to give their side back to us, even though we've requested on several occasions because we're concerned about readmissions. But for most of them the outbound process is really what we've been concerned about and been pretty successful getting them integrated into our environment.

Brian Jacobs – Children's National Medical Center – Chief Medical Information Officer
We've taken sort of an interim solutions and a long-term solution. The long-term solution is health information exchange and that's sort of looking over the next two- to three-year period. The interim solution we put in place is a physician portal where any provider really with a need to know can securely and reliably access through a Web-enabled portal and see lab results, discharge summaries, consult it notes, radiology reports and so forth there. It's a little challenging trying to maintain that, particularly in the large group practice, where the patient is related to one of the providers, but there may be eight providers in that practice there, and trying to maintain that relationship between a group practice and an individual patient and still ensuring security and privacy and HIPAA compliances has been challenging and requires a resource, but that had been a fairly effective interim solution for us in transitioning to our long-term HIE solution.

Elizabeth Johnson – Tenet Healthcare – VP Applied Clinical Informatics
Judy?

Judy Murphy – Aurora Health Care – Vice President of Applications
We spent a fair amount of time on the previous panel on this whole issue of the certified product and what it all contained and I don't want to rehash all that, but for the three of you that are using vendor products, I'm curious if you're experiencing that same issue?

Brian Jacobs – Children's National Medical Center – Chief Medical Information Officer
We are. We have three good products and we're proud of all of them and they all need upgrades and these are upgrades that we're supposedly going to be doing in the next couple or three months here. So, it's challenging, it's expensive, it's laborious, it's down time and all upgrades, as you know, are associated with other little side effects as well.

Russ Branzell – Poudre Valley Health System – CIO
Same thing. We absolutely see it as a big issue. We've actually, a group of CIOs were able to go up and spend some time with ONC and their staff and actually tried to work through some of these issues, so I'm pretty sure that ONC is aware of the direct concerns that the CIO community has and actually the whole healthcare community has on this. I think the issue is that a vast majority of the healthcare community doesn't understand this right now. With every CIO I talk to on the phone and explain this, they go from semi optimistic in the next two years to complete despair because they realize that the entire plan they put in place is at jeopardy. When we had our state CIO meeting in Colorado I asked for hands of who could meet it in the next two years. Almost every CIO in Colorado's hand went up. After we explained this latest clarification I said now how many, and every hand went down.

Now, most of them have gone back and retooled their plans, but I think this is a fairly significant issue. If I could, I think part of the problem is definitions. There's a difference between a module and how you and I would probably define it and a lab is a module, and radiology is a module and how it's defined in the regulations a module is getting CPOE done, which includes many of our traditional modules that are done and so I think we're dealing with definitional problem here, is that one thing is being certified is the process of getting CPOE done versus what we think is a module, which is lab and radiology and ED. People are still working in two different worlds, where one's process oriented and the other is a function oriented and people haven't gotten together to make the two merge.

Judy Murphy – Aurora Health Care – Vice President of Applications
Thank you. That's an important clarification. How about you guys?

Josie Bendiks – Concord Hospital – Director, Clinical Information Systems
We have vendor products in both the inpatient and outpatient and we are in the process of implementing their certified versions, which is the good news, but it has not been without the challenge of early adopter certified vendor releases that have issues related to them and need to be re-implemented, re-tested in terms of the certification. We have had to purchase additional modules that we didn't plan to implement in Phase I menu choice, medication reconciliation being an example of that. That wasn't one of our first Phase menu choices, but there's a module and a cost for that, which we may have been able to put off laying out that capital until later in the process and I think just the same challenges regarding not just now, and we're sort of focused on, okay, version 9.5 and version 10.3 or whatever, but the awareness that every year we're going to face the same time crunch, the same reiterative process and we'll have barely recovered from one iteration of upgrade to be faced with another.

Elizabeth Johnson – Tenet Healthcare – VP Applied Clinical Informatics
Cris?

Cris Ross – LabHub – CIO
The panel has been just terrific today, as have the others. Dr. Bowes, you made a comment in your testimony around having a longer-term vision from ONC. I know it wasn't one of the maybe key points that you made, but it's sort of a new one or an interesting one and you said we needed a guidance horizon or planning horizon out to 2017. I would be interested in hearing from the rest of the panel whether you also think that that would be a good idea and would be interested in knowing what do you think should be in that guidance? It's about two years further than what ONC is currently planning in terms of meaningful use.

Also, if possible, if you could include in your comments, we've heard in the Implementation Work Groups in the past this idea about the balance between sort of certitude and reliability and predictability versus the need to have innovation and the idea that if we looked back six years, the products that existed then may not be the ones that we would want now and so on and so forth and don't want to have locked things in. So, there are probably a couple of questions there you could answer if you wanted to, take your pick,

but I'm interested in your viewpoint around do you think that guidance and planful is helpful and, if so, what would that look like and if you could talk about innovation that would be great.

Len Bowes – Intermountain Healthcare – Physician and Senior Medical Informaticist
Let me just really quickly follow up on that. Thank you for the question. Let me just give you an example. We were on a roadmap before meaningful use came out to have a problem-driven physician order entry, discharge documentation system. So, the track we were on was if I'm an ED physician, somebody comes in with a fractured ankle, they type in ankle fracture. That may be the chief complaint, but it's a problem, it's the admit diagnosis, right, or admit problem.

That generates a list of orders. It also is going to generate the documentation. It's also going to generate the discharge planning. So, that is our vision for where our third new system that we're developing is to go. The problem is we had to kind of derail that when meaningful use came out and there had to be a huge decision made at the CIO and, actually, CEO level, are we going to divert our roadmap to meet meaningful use? Or, do we stay on our roadmap and go where we wanted to go?

So, what we're looking at, for us to develop and implement that kind of a system is really a three to five year process. Now, that's our situation; it's not everyone's situation, however I do know that folks that aren't doing CPOE, it's an 18- to 24-month process to get a 500-bed hospital up on CPOE if you're starting from nothing. So, I'm just saying that what we found, as I mentioned, we have tended to be very deliberate, but gradual in the way we go and that's just our implementation and our culture. I think we have shown that we have a low cost, high quality system right now at Intermountain Healthcare and the reason we have done that is because we've been able to leverage our IT systems to meet some of our processes.

Now, we don't exactly meet meaningful use, but if we can have some time I think that for us, for systems like Intermountain it would really help us, especially the guidance. So, when you ask what should we do first, I think medications, allergies are critical. I think discharge summaries are very key. I think CPOE to actually be physician order entry where it doesn't impact the physician's productivity we want to get to that problem-driven CPOE solution.

Now, Russ and these folks may have a different say, but I'm going to stop right there and let these guys.

Josie Bendiks – Concord Hospital – Director, Clinical Information Systems
I definitely think I agree with everything that Len has been saying, but I think like most organizations that are acknowledged leaders in patient safety or in information technology or in self-selected early adopters had a vision for their healthcare IT plan, had a vision and also had a plan and the plan is certainly derailed and it can't help but be because HITECH, although it has stimulated us many ways in a good direction to do things we were deferring and is providing incentives, both philosophical and real, hopefully, we have had to put off things that we would have done naturally and that would have evolved over our long course of HIT, which is over ten years.

There are so many criteria, 20-odd inpatient, 20-odd outpatient that it is literally all-consuming so any other large and small implementations have been put off and the other concern that I have about innovation, it has also predicted the order you must do things in and I'm not sure we as an industry is the right order to do things in. Does medication bar coding belong later or why wasn't it okay to do that sooner? And if there is a particular challenge in our organization, Joel was eloquent about problem list of us, could that be opted in later in a longer timeline? So, could there be some flexibility for organizations with good intent and good effort?

Russ Branzell – Poudre Valley Health System – CIO
I think the more we know upfront, the better off we're going to be. Doing a piecemeal approach, which is what we're doing right now is very difficult. Just saying medication orders for CPOE is kind of

embarrassing when you go talk to docs. And they go one order for one person for; what are you talking about?

We're trying to convince them to do process re-engineering and better patient care and efficiency. Tell us the ultimate goals, tell us the end state. If you need to back off of that a little bit in tiered, but don't say okay, it's 30% this year and it might be something else next year. Tell us the ultimate state. Is the ultimate state 95% of all medication orders, of all orders? Go ahead and set the bar now, because some of us only want to do these projects one time. And the reality is I know of organizations right now that are tackling med orders for one order per patient. That's the approach they're taking now because that's what the government told them to do. That's bad patient care. And what we need to say is here's the right thing to do for patient care and patient efficiency. Give them the whole thing and let them out there in approach. Now, if they need to back off, that's where you have some flexibility in the requirements.

But ONC CMS needs to give us as clear a path; think of this as a road journey you're taking in your car. You just don't get in the car drive off sometimes. You plan a little bit. But if the whole plan here is to get from Seattle to Miami, we might want to plan that out a little bit. Tell us that we're going to Miami and what we need to do to get there and most organizations I think, maybe I'm being Pollyanna about this, most organizations will attack it with all their energy and get us there. Right now, we just don't know what the rules of the game are.

Brian Jacobs – Children's National Medical Center – Chief Medical Information Officer
For many years we operated on a five-year informatics and technology strategic plan there and we went along our merry way without meaningful use and the impact of those millions of dollars on our strategy there; now the game has changed a bit. When millions of dollars are coming in in this economy it makes you rethink your informatics and technology strategic plan there. It's critical to us, not just useful, but I think it's critical that we have a comprehensive roadmap, number one, and that it not be so prescriptive as it has been in stage one, but rather be more flexible with choice and also to be more outcomes driven as opposed to process driven there.

So, I think having a comprehensive roadmap with choice, with an outcomes-based point of view associated with it will allow us to decide, are we going to do barcoding? We had no real intention to do barcode med administration here in the next couple three years. We had too many other things on our plate there. But if that's going to be prescriptive and required to get into stage two and three meaningful use incentive payments, then we'll have to rethink that as well. So, yes, in answer to your question, we'd love to see some early and comprehensive guidelines.

Elizabeth Johnson – Tenet Healthcare – VP Applied Clinical Informatics
Russ, in reading your testimony and in listening to you, you said something that surprised me, because we've been hearing it a little differently. You said you weren't worried about resource availability, you were worried about resource affordability, I believe. What we've heard up until now is we've got a workforce problem. So, I was surprised by that.

Russ Branzell – Poudre Valley Health System – CIO
We've been hiring, whether it be consultants to augment our own relief staff that we train locally; it's not necessarily an issue of whether I can get the right skill sets, it's how much it costs. One of our vendors, it was $125 an hour last year for a consultant to help with implementation. It's now $250 an hour. Well, that's a big difference when I make a proposal to a physician office about coming on to our EMR and I have to use outside resources. We've already gotten to the point, I think we're probably somewhere between $3 million and $4 million under Stark donation requirements or allowances; we basically can't do that now with the costs of those resources that are there.

So, we've basically gone back to the point of almost training our own internal resources because external resources are just so expensive. They're actually fairly easy to find. I so far have had no problem finding emergent resources. Call on a Friday to one of my friends that runs a vendor company, somebody is

there by Monday or Tuesday. That is not the issue. The issue is it is so darned expensive right now to get those resources.

Elizabeth Johnson – Tenet Healthcare – VP Applied Clinical Informatics
Is that an experience that all of you are having, is that similar across the board, across the panel? Brian? Josie?

Brian Jacobs – Children's National Medical Center – Chief Medical Information Officer
I don't know that I would say the resources are as available, but the prices certainly have gone up this year, that's for sure.

Elizabeth Johnson – Tenet Healthcare – VP Applied Clinical Informatics
Josie or Len? Do you use outside resources?

Josie Bendiks – Concord Hospital – Director, Clinical Information Systems
To date we've been mostly focused on our internal resources and, as we said, we've basically diverted them from anything else, so they're working on this so we haven't gone out for vendor resources.

Elizabeth Johnson – Tenet Healthcare – VP Applied Clinical Informatics
Yes, there was another comment. Len, did you have a comment on the resources?

Len Bowes – Intermountain Healthcare – Physician and Senior Medical Informaticist
We're just do different in that we have to develop; our biggest worry, as I mentioned, is getting someone used to our system, training them on it; it's not generalizable, but it is certainly an issue for us.

Elizabeth Johnson – Tenet Healthcare – VP Applied Clinical Informatics
Then, Brian, in your comments you made a really interesting observation that vendors should provide practices in organizations with tools to create efficient and compliant documentation. I don't think that's someone that no one agrees with; I think it's a very valid point and wondered if you would expound on it a little bit.

Brian Jacobs – Children's National Medical Center - Chief Medical Information Officer
Sure. Yes, I'm sorry I didn't get to talk about that in the introductory comments there, but one of our biggest challenges is trying to implement physician documentation in a very busy office there. We have clinicians that; I'll give you one of our orthopedic stories. Eighty patients a day in the cast room, running through them every minute or two and stacking up a lot of paper and at the end of that clinic there dictating at one or two minutes per dictation a note on all of those patients there, so, again, this alludes back to a comment I made in one of the earlier sessions today, just the simple act of logging into the computer would disrupt that entire efficiency there as well.

So, what we always challenge our ambulatory and inpatient physician documentation vendors is what can we do to think out of the box to create documentation that is very efficient to these users? You walk up to the computer, you're on immediately. You don't have to be searching around and clicking on things, using voice recognition or whatever it is to make that documentation efficient, effective, compliant. We've got to move forward with that and we really need to have the vendors assist us in that effort. I don't think that is going to happen unless the vendors become very serious about engaging clinicians in their design, their usability and their form factor and human factors and so forth.

Elizabeth Johnson – Tenet Healthcare – VP Applied Clinical Informatics
Interesting. So, other comments from each of you or questions from the panel? Unfortunately, a number of people have had to leave because of weather, but throughout the day we've been extracting from a number of types of providers, what are your real issues, what has gone well, what are your successes? You've done a remarkable job providing that information back to us This is sort of a unique opportunity. You've got us captive. We're all snowed in apparently or something, so this is your opportunity to tell us

where standards are, what you need them to be, or we could do other things with the few remaining moments that we have. We'll just go right down the table, so this is where you actually have a few more than five minutes, there you go.

Len Bowes – Intermountain Healthcare – Physician and Senior Medical Informaticist
Speaking for Intermountain, I wanted to pose a couple of other; well, there's another suggestion I thought about. The Beacon Communities all have their specialties in terms of how they're bringing benefit and can show maybe increased efficiencies, better quality. I think what would be nice is if we could leverage some of the Beacon Communities to tell us why are they Beacon Communities? What have they done to be meaningful users of electronic health records and can we somehow leverage the Beacon Communities and learn from them and I have heard Dr. Blumenthal say, well, maybe there's another way to meaningful use down the road.

If, for example—and this is just our case, but I'm sure everyone else has these—we identified disconnects in our ICU that have saved lives; we've identified pre-term and decreased our pre-term and elective deliveries, that was just a process we put in place and we manage it with our EHR and that decreases NICU admissions; identifying patients with depression. We now identify patients with depression using our EHR, so I guess what I'm saying is we believe in where meaningful use wants to go, we believe in HIT to benefit the patients, to decrease our cost and improve efficiency. So, I'm just saying is there a way we can use the Beacon Communities and also allow for some flexibility for institutions that can show definite meaningful quality or decreased cost, somehow they can become meaningful users. So, I'll just end on that note. Thank you.

Elizabeth Johnson – Tenet Healthcare – VP Applied Clinical Informatics
Joel or Josie?

Josie Bendiks – Concord Hospital – Director, Clinical Information Systems
I think, to pick up on that theme, I do think there is room in this to look at, and one of the things that we've done, which I think is meaningful and quality is we've been able to through our CPOE program on both the inpatient and outpatient side when a CT is ordered to display the cumulative CDs and also a histogram of when at the patient's age those were delivered, so real time clinical decision support, pretty innovative, currently no place for that to count for anything except what it does for us in the organization. But briefly, I think if there's flexibility on the criteria you choose, flexibility on the order you do them, rethink the overall timeline to give both the vendors and the healthcare organizations time to implement and adopt and move the quality measures out towards the end when outcomes are really available.

Joel Berman – Concord Hospital – Chief Medical Informatics Officer
Can I double-dip?

Elizabeth Johnson – Tenet Healthcare – VP Applied Clinical Informatics
Of course.

Joel Berman – Concord Hospital – Chief Medical Informatics Officer
I'll be quick. I want to hark back to the idea of the overarching vision that I think, was it Brian who articulated that so well? Our biggest successes in both the outpatient and inpatient arenas have been initiatives for which there is a very clear case that this improves patient quality or safety, you know, the reasons why providers get up and go to work in the morning. It's essential because as we've heard through testimony earlier in the day EHRs inpatient and outpatient are relatively immature; they're in their early stages or adolescence at best, they tend to have temper tantrums. If providers are going to invest that extra energy, plus their staff they have to a clear understand, a recognition of where it's taking them and then some results that really make a difference at the end of the day.

In our outpatient arena we've been able to customize our EHR to provide prompts at the point of care because we have accurate med analogy and problems lists and we've used that to dramatically improve

intermediate outcomes, biological indicators for patients with diabetes and heart, cardiovascular disease. We've dramatically improved in a sustained way our screening for colorectal cancer and immunizations. These are things that you don't have to sell to physicians and they're willing to go home and document their charts after hours, as some other people have documented.

That's an essential element of what we need to keep doing this and in the inpatient arena it's the same thing. We've had success with CPOE because we made a strong and compelling case that paper orders are hazardous to your health, your family's health, your child's health, your patient's health. We used local real life examples to make that case and without a mandate we have 85% adoption of CPOE. That's because we've got the vision, the vision of where we're going, what we're doing with this, why we come to work in the morning and I would just endorse that concept that you let that inform where we go over the next five to seven years.

Elizabeth Johnson – Tenet Healthcare – VP Applied Clinical Informatics
Interesting. Russ?

Russ Branzell – Poudre Valley Health System – CIO
I'll keep it pretty simple and that is the hardest thing you've got right now is to listen to what's truly constructive criticism and what's whining. I think what we're going to find, whether it be in our own local healthcare or regional healthcare or national, we're going to have lots of whiners and they're the ones you need to discard at this point. This is hard stuff. No matter what, it's going to be really hard stuff and as we move forward it will get harder.

There are some that no matter how small of an issue something is they're going to complain about it, just because they like to complain. You need to listen to what's truly constructive criticism, things we can fix both for ONC, CMS for the whole country for this. We have a simple saying in our organization—when times get tough we just lean into it. I think right now we as a community, as a healthcare community, as an IT community, as you all as our leaders from a national perspective, it's time to lean into this because it's not really a matter of choice. We have to get this done. We've already left the race and it's time to go and pick the pace up a little bit.

Elizabeth Johnson – Tenet Healthcare – VP Applied Clinical Informatics
Right. Brian?

Brian Jacobs – Children's National Medical Center - Chief Medical Information Officer
I'd just like to reflect back a little bit of a peripheral issue, which is there are several organizations in this country who look at the way an organization is utilizing resources and technology to produce value, value in terms of quality care delivery, efficiency, effectiveness and so forth. I'm thinking particularly of the Davies Award and the Baldridge Award as well, and the criteria is met by first of all, meeting some criteria in an application, some threshold metrics, but also a team coming out to that organization and evaluating the value that that organization with their resources and technology were able to prove there.

Wouldn't it be nice if part of meaningful use was to come to some of these organizations and say show us what you're doing with your electronic health record to achieve value and meaning for you? Wouldn't that be great to see those types of innovative, meaningful use value propositions come out of those organizations, the learning that could go on from that and certify them in that respect as opposed to meeting a metric, a numerator/denominator metric that may not really have much meaningful use at all for them or others. So, I don't know if that's possible in the current ONC CMS structure, but maybe something to think about in terms of getting into stage two, stage three value proposition is getting out to the organizations and look at what innovation and what value they've achieved.

Elizabeth Johnson – Tenet Healthcare – VP Applied Clinical Informatics
Russ?

Russ Branzell – Poudre Valley Health System – CIO
Can I add something real quick to that?

Elizabeth Johnson – Tenet Healthcare – VP Applied Clinical Informatics
Sure.

Russ Branzell – Poudre Valley Health System – CIO
ASQ and Chime have partnered up actually for that very purpose, to try to do some incorporation with the meaningful use requirements along with the Baldridge criteria. So, there are three of the CIOs, including myself, from previous Baldridge winning organizations that are actually working on an initiative with ONC to try to incorporate that into one assessment tool as well some criteria on how to incorporate that and it's actually being presented, I think, to Dr. Blumenthal.

Elizabeth Johnson – Tenet Healthcare – VP Applied Clinical Informatics
Great. Well, thank you all, as always a tremendous amount of information that's been shared with us and the insights that you've provided us, the real world experiences, are actually what we can take back because they're far more convincing than just anecdotal information. This is real life, you are really dealing with it and we appreciate your time away from your work and coming and sharing with us, so thank you for your input today.

Judy Murphy – Aurora Health Care – Vice President of Applications
So, just to summarize, I'm going to kind of try to pull this all together, which, of course, is not easy, but first of all, I have found the last couple of days inspiring and I think that it's been interesting to hear various different approaches to the matters at hand. We've heard a plethora of information, I'd say the good, the bad and the ugly of it all. We've certainly heard from folks who are jumping in early, we've heard from folks who are waiting, we've heard constructive criticism and we've heard whining, to use some of the words from the last testimony.

Again, testimony from Regional Extension Centers, the Regional Extension Center users, the EHR certifiers, the vendors, HIEs, the HIE participants, large and small hospitals, large and small providers as well as urban and rural sites and I think, though, we've been able to identify some pretty clear feedback to report back to Standards and Policy. It will be interesting pulling this all together and I'm going to rely on a couple of the other people from our workgroup to do that and just so the process is clear, both the Policy and Standards Committees will be getting a summary of feedback from this hearing and those committees then will determine what feedback to specifically get back to ONC and CMS.

ONC was going to have a representative in the room, but we had some issues getting the right person. Josh was on the phone this morning, but wasn't able to be on the phone this afternoon. Rob has certainly been here from CMS so, we're going to be utilizing those resources. But, again, both the Standards Committee and Policy Committee are advisory committees so we will be using that advisory capacity to make recommendations back from this feedback.

One of the things I know that we've talked about doing as the Implementation Workgroup, we had our first hearing back in October of 2009 when our eyes were starry and the possibilities were limitless. We took that feedback and really distilled it down to ten principles. We've committed to re-looking at those ten principles and giving ourselves a score. How are we doing related to those principles? Let's just say one of them was keep it simple. I'm not sure that we've done that and I think we need to look at, as I mentioned yesterday, actually, as I read the testimony one of the words that came out most frequently was the word complex. I think that's the opposite of simple in anybody's definition. So, I really feel we need to look back and say what did we learn and how can we change things going forward and what advice would we give back to both ONC and CMS related to that?

I'll close by saying there have been different definitions of meaningful and we've talked about the big M and the little m and we've also heard lots of other people's ideas about value propositions related to

Health Information Technology and the quality benefits and safety benefits we should be seeing from it, and I think we need to take that to heart because nobody was ever meaning for this to exclude those other things and I think we've heard loud and clear yesterday and today that in some people's definitions, that's actually happening, potentially even at the side of the vendor.

With that I'll close my summary remarks and ask Liz if she's got any additional ones she'd like to make and then, I don't know, is somebody trying to make a comment on the phone? No, okay.

Elizabeth Johnson – Tenet Healthcare – VP Applied Clinical Informatics
So, it's been an interesting journey. It always is. You get a lot of people that are very passionate about something we're all working on together, right and we all have different ideas and we see it differently and that's the value that you bring to us when you take your time and you come here and you tell us because then, like Judy said, we distill this and we go back and we start to change the way we approach things. We take what you say very seriously. In our other jobs, our day jobs or our night jobs or whenever we do those jobs anymore, we're all implementing systems, too. So, we share commonalities with you in your experience, but it re-validates for us, it's real. You are struggling with certain things, certain things are working extraordinarily well.

We need to do better and promote those that work, work harder on those that don't and I think critically we need to advise the Meaningful Use Group, the Standards Committee and the Policy Committee to say you've got another wave of these things coming through. Everybody out there in pretty general consensus is, we want this to happen. We think it matters. We think it will improve patient care. Therefore, we need to really be cognizant of this disruption that we've caused, all for the right reasons in my opinion.

I mean I heard several people say it sort of disrupted their roadmap. In the organization I work for it actually accelerated our roadmap so it was a very positive thing, however, it is a very hard thing. So, we heard you, we really appreciate your time. You'll be hearing from us. Like she said, we'll be distilling tonight the presentation for tomorrow, so we may miss a comment or two, so as you look at please feel free to let us know. That has always been our method. Judy Sparrow is always available to get those comment and send them on.

So, thank you for your time and I think we'd like to open it up to public comment.

Judy Sparrow – Office of the National Coordinator – Executive Director
All right, anybody in the room who wishes to make a comment to the workgroup, please step forward to the microphone and if you're on the telephone, you can just press star one to speak and if you're listening via computer please dial 1-877-705-2976. We have a gentleman at the microphone. If you'd identify your name, your organization and there is a three-minute time limit.

Wilson Washington – SAMHSA – Public Health Advisor
My name is Wilson Washington. I'm a Public Health Advisor with SAMHSA and I'm here to bring a message, certainly of concern. Today you've had the privilege of feeling, today and yesterday, the pulse of the industry. Of course, in healthcare when you feel the pulse of the industry or the pulse of a person, you know they're alive.

So, you know that healthcare recovery is alive. Our real concern, and I bring this not just as a public health advisor with SAMHSA, but as a practicing CEO. I was a CEO of one of the largest community services boards in the state of Virginia and also Vice President of one of the largest FQHCs in south Florida and in those capacities certainly worked in healthcare for over 30 years now. In those capacities I've learned that when you're talking healthcare recovery, Health Information Technology and Health Information Exchange, I can't talk about that without thinking behavior health because behavior health is part of the fabric that makes up our healthcare system and I certainly believe that it's a huge component within the science of health.

So, I think that what I bring to this Policy Committee to take back to ONC and, of course, CMS is that publicly I believe we have a great opportunity here for public acknowledgement of inclusion of behavior health as part of the fabric of the health information technology and health information exchange plans. Because if we move forward without it, we're setting ourselves up for a great challenge, so my recommendation here is to take back, perhaps, an opportunity for us to really publicly acknowledge, and I'll close with three things. We had Virginia Tech; we had Fort Hood, Texas and now, over the last three days, Tucson, Arizona. Now we don't get the message yet; we need to wake up and really make behavior health part of the fabric of any plan moving forward on Health Information Technology and Health Information Exchange. Thank you.

Judy Sparrow – Office of the National Coordinator – Executive Director
Thank you, Mr. Washington. Are there any other comments? Chantel?

Chantel Worzala – American Hospital Association – Sr. Associate Dir. of Policy
Thank you all so much for taking the time to hold this hearing. I'm very pleased that you did hear directly from the providers who are working so, so hard to meet the meaningful use requirements. And very much appreciate the time that you all take to help guide this process to a very meaningful end state where health information does follow the patient to improve care and the efficiency of our healthcare system. So thank you very much for all of your efforts.

I did want to note that the folks who took the time to come here and testify today are from very advanced hospitals and healthcare systems. They are extremely sophisticated CIOs and including those who have been named, for example, CIO of the year, Chuck Christian, congratulations. Knowing the confusion and the issues that they are facing and thinking about how that sort of goes out in those waves to those who have less time and fewer resources to spend to think about how does this work and how do I meet these requirements? I think these messages of keep it simple, more information, are extremely important as we go out from those who are the leading edge and devoting a lot of resources to this to those who are just getting started. I did want to emphasize some of the points that were made about certification. I thought Mr. Ross summarized it quite well and I'm paraphrasing, when he said that it sounds like the certification requirements don't actually match how software is deployed in this country.

That's exactly right and this is an issue that needs to be addressed and needs to be addressed very quickly because, as you heard from these folks, they feel like from a functional point of view they can meet meaningful use. But from the point of view of meeting the certification requirements they honestly don't know what they need to do, they resent the notion that they need to buy products that they don't intend to use in order to meet the certification requirements and they don't want to buy technology that may not work. So, I urge you to take that particular issue to ONC and I am disappointed that ONC was not here to listen to the final two panels. Thank you very much.

Judy Sparrow – Office of the National Coordinator – Executive Director
Thank you. Anybody else in the room? There is nobody on the telephone, so thank you all and, Judy, I'll turn it back to you, you and Liz.

Elizabeth Johnson – Tenet Healthcare – VP Applied Clinical Informatics
Well, I think we just thank you all for coming and that will end the hearing today.